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Fall 2003
Volume 633

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Wireless weather station does every-thing but hand you your galoshes.

3.5"

5.3"

Weather Station

This weather station can wake you when you're sleeping, warn you when temperatures reach danger zones, and tell you when your tropical fish are shivering.

This multi-function digital weather station is a great gift for the weather-watcher who likes to know everything — including the future and the temperature "down below." It's an indoor/outdoor wireless thermometer, graphical weather forecaster, lighted alarm clock with snooze alarm, day/date calendar, audible temperature alarm. It's even a pool and pond thermometer.

Remote

3.5"

2.5"

The outdoor sensor transmits up to 100' through walls and fences. Slide the sensor out of its bracket, plug in the 10' waterproof probe, and check the temperature of your pool or pond. A flashing storm alert warns of severe weather ahead. Programmable audible high/low temperature alerts help prevent household catastrophes. Readings displayed in C° or F°. Base uses 2 AA batteries (included). Remote uses 2 AAA batteries (included).

 # 227117ED   Wireless Weather Station **$94.95**

Record 1.5 hours in files you can download, replay and e-mail.

Built-in scheduler lets you record up to 20 time-activated alerts. LCD shows remaining recording time and battery life.

Calling this palm-sized powerhouse a digital voice recorder is like calling Lake Michigan a pretty pond. No recorder we've seen ever packed so much usefulness and quality into two ounces. With its 90-minute maximum recording capacity, you can capture lectures, classes, even long meetings. Then download and replay your recordings on your PC via the USB cable and software (included). You can even e-mail the .wav files to share with others. Select the quality and recording time that suits your needs: LP (90 min.), SP (33 min.) for speech-to-text compatibility, and HQ (22 min.) for highest-quality crystal-clear sound. Best of all, the recorder is so intuitively designed, we used all the features immediately without touching the manual! Includes USB cable, PC-compatible software, carry strap, earbud headphones and 2 AAA batteries.

 # 219686ED   USB Digital Voice Recorder **$59.99**

Glare-Free Computer Light on a 16" monitor

Glare-Free Document Light

# Feel the relief with cool 100% glare-free lighting.

No more tired eyes! Dim the room lights and enjoy perfect work lighting without strain or sweat.

Finally, a lamp that lets you work hours longer without eye fatigue or overheating. The ingeniously designed Eclipse Computer Light provides the soft, cool, glare-free light recommended by optometrists. The secret is a bulb concealed in the base, and an airfoil-shaped hood that reflects light softly, so you notice your work, not the light. The cool 13-watt bulb lasts 10,000 hours and can be replaced at most hardware and lighting stores. Mounts securely with double-sided foam tape. Compact mounting pad even fits flat panel monitors. 8"H x 10"W x 4"D. For glare-free illumination of your documents, add the Glare-Free Document Light & Copyholder. Mounts on either side of your monitor, flips back when not in use. Both include AC power cords with adapter and a 5-year manufacturer's guarantee!

 # 224303ED   Glare-Free Eclipse Executive Computer Light **$38.49**
 # 224311ED   Glare-Free Document Light & Copyholder **$29.95**

227125ED
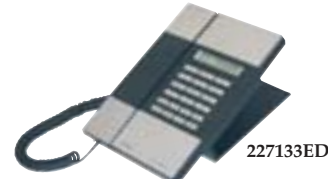
227133ED

That's your TELEPHONE? Wow!

It's not just a phone…it's a statement. And, in spite of their blueblood heritage, these phones are surprisingly affordable.

You'll hear it every day when you bring one of these sleek, elegant telephones into your life. They're designed by Jacob Jensen who's won more than 100 international art awards and whose works are displayed at N.Y. MOMA. Reminiscent of the venerable B&O phones, get yours for hundreds less. Practical as they are beautiful, they come with all of the features you want in a telephone, such as number redial, speed dial and they are even wall mountable. The LCD Speakerphone's 3 line LCD displays caller ID with a memory of your last 66 callers. It has a 77 name/number phonebook, is headset ready and operates in 11 languages!

227141ED

227150ED

 # 227141ED   Right Angle Phone... **$59.95**
 # 227125ED   The Jensen.. **$79.95**
 # 227133ED   10-Digit LCD Display Phone **$109.95**
 # 227150ED   Speaker Phone with LCD Display **$99.95**

Save $50

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Get crisp, professional looking color or B&W output at 600x600dpi on your paper format of choice: letter, legal, executive, #10 envelope, card stock, or transparency film.

Save money and share a phone line with your answering system. Zip through faxing chores with a fast 6 second a page transmission speed, a huge 150 page memory, and up to 100 speed dials. Reduce or enlarge copies from 50%-200%, and print up to 99 copies at a time.

The sheet-fed color scanner saves you time with your choice of superior 24-bit color, or 8-bit B&W options, with up to an incredibly sharp 1200dpi enhancement. Connect through the computer's parallel port.

Unlike those expensive, space-hogging stand-alone devices, the included software and drivers ensure this single, small-footprint solution is integrated perfectly with your Microsoft® Windows software applications. 17"W X 14.2"D X 10.2"H. Order today while they are still in stock at this special price!

# **211043ED**	HP Officejet 600 Series ...... **MSRP $179.95 Now**	**$129.95**
# **182967ED**	HP51629A Black Cartridge	**$35.95**
# **182975ED**	HP51649A Color Cartridge	**$36.95**

Zip, you're wired. Zip, its gone. Disappearing cable trick.

These thin, flexible cables weigh just half an ounce and roll up like a window shade for packing. Why can't all computer cables be this manageable?

Don't you hate lugging those heavy, bulky cables around with your laptop? Now, you don't have to. ZipLinq USB and Firewire cables are as lightweight, thin and flexible as a shoelace, and they store themselves tangle-free in a case the size of a quarter. To connect the cable, take a connector in each hand and pull to the length you need, up to 2-1/2'. Ready to roll? Tug gently, and the cable zips neatly into its case like a window shade. Durable ABS housing protects the cable during storage.

226405ED

226368ED

# **226405ED**	Firewire Male 4-pin to Firewire 4-Pin	**$13.49**
# **227424ED**	Firewire Male 6-pin to Firewire 4-Pin	**$15.95**
# **227459ED**	Firewire Male 6-pin to Firewire 6-Pin	**$14.95**
# **226392ED**	USB A to Mini USB 5-Pin	**$11.95**
# **226384ED**	USB A to Mini 4-pin	**$11.95**
# **226376ED**	USB A Male to USB Female	**$11.95**
# **226368ED**	USB A to USB B	**$11.95**

At $9.95 you can afford to test it on a couple of twenties.

219184ED

219176ED *Confetti-Cut*

Strip-Cut

We've all wanted a shredder from time to time, but at these prices its just too hard to pass up. For a ten spot you can protect yourself from prying eyes and "dumpster divers" with a personal shredder. The Fellowes strip-cut paper shredder (219184ED is designed to go anywhere you need it, shredding sensitive documents into "unreadable strips." Auto-start/stop means you can feed in up to 7 sheets at a time (staples, paper clips and all!) with one-handed ease; no fumbling for a switch. And at this unbelievable price, you can turn every basket in your home and office into a maximum security receptacle.

For an added measure of destruction of top-secret materials, use the Fellowes factory refurbished confetti-cut shredder (219176ED). Originally new at $129, it is an equally-great value now at $49.95. It features faster throughput, greater capacity and a confetti-cut to make your discarded documents disappear, and disappear for good. To keep prying eyes from poaching your private business, either model will turn that stack of confidential paperwork into a handful of scrambled dregs with shredded ease.

# **219184ED**	Fellowes Brand-New 7 pg. "Strip Cut" Shredder	**$9.95**
# **219176ED**	Factory Refurbed 12 pg. "Confetti Cut" Shredder	**$49.95**

Charge your cell phone from your PC or Mac USB port.

Wall Outlet

*Car Outlet*

Comes with 6 different adapters to fit any cell phone.

Charge your cellphone without a heavy adapter, a cradle, or even a power outlet! Bet you didn't know you could do that!

Leave that heavy cell phone charger at home and "juice up" from your computer's USB port. Just plug one end of the 2-1/2' ZipLinq cable into the USB port of your PC, Mac or PDA. Plug the other end into your phone charger jack. In as little as one hour, you're talkin' the talk again. ZipLinq cables are incredibly convenient, because they're light, flexible, and they zip away into a case no wider than a quarter. The 12V and 110V adapters allow you to use your USB-to-Cell phone charger cable with a wall or car outlet.

# **226317ED**	USB-to-Cell phone Charger Cable For Motorola, Siemens, Ericsson and Nokia phones	**$24.95**
# **226325ED**	USB-to-Cell phone Charger Cable For LG Mobile, Sanyo, Samsung and Kyocera phones	**$19.95**
# **227432ED**	12VDC-to-5V USB Charger (car outlet)	**$14.95**
# **227441ED**	110 VAC-to-5V USB Charger (wall outlet)	**$15.95**

Never be without light again with our solar lantern.
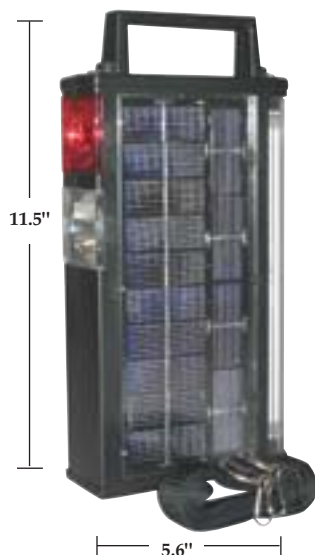
The perfect light source for emergency situations. You will never run out of light with this rechargeable lantern. It features a three-way power system: solar power – charge the built-in battery during the day for night time use; 3-D size alkaline batteries; or AC/DC adapter that can also charge the built-in battery. Designed for indoor or outdoor activities with three unique features: solar fluorescent light, solar blinking light and solar searchlight.

11.5"

5.6"

Includes: Strap & spare bulbs

- 8-10 hours in full sun for a fully-charged battery
- Up to 3 hours of operation when using flashlight and fluorescent light simultaneously; 10 hours of blinking light; 8 hours of torch light; 4 hours of fluorescent light
- Size: 5.6"W x 2.1"D x 11.5"H
- Weight: 1.8 lbs.

 # 219598ED Rechargeable Solar Lantern **$69.95**

Quarter not included.

Shown actual size.

A mini-camera that's half the size of a pack of gum.

With low power demand and its tiny size you can build this camera into almost anything.

This mini-camera is perfect for hobbyists and educators for experimentation or for anywhere you want to add video to your project. With its high resolution (525 lines) and low light sensitivity (0.2lux) it is well suited for the study of optics in the classroom.

The camera does not come with a lens but you can easily adapt standard lens or use the optics of a telescope, microscope, etc. to bring video to your project.

- Resolution: 380 TV lines
- Scanning: 525 lines interlaced (EIA); 625 lines interlaced (CCIR)
- Video output: 1Vp-p / 75Ω
- Iris control: CCD with electronic shutter control (1/100,000 sec. Max.)
- Signal to noise ratio: 45dB or more
- Imager: 3/8" CCD
- Light sensitivity: 0.2lux
- Power: 9.0V to 14.5V, 1.2W

 # 226237ED Mini B&W Camera **$14.95**

Military-precision compass goes from traffic to trail automatically.

Go from backroads to backpacking with confidence. The All-in-One Compass switches modes automatically.

Ingenious design makes the All-in-One Compass two precision navigational instruments in one. In the cradle, it reads direction vertically for driving. Lifted out and held flat, it automatically switches to handheld mode for hiking. Car and hand icons indicate mode, so you can't make a mistake. Magnetic sensor technology developed for the military and used by GM, Ford and Chrysler assures accuracy. Holographic display is easy to read in bright or low light. Pushbutton backlight lets you read in pitch blackness. Runs on two AAA batteries or 12-volt car adapter, both included. Auto turn-off conserves battery life. Size: 2.5"L x 2.5"W x 1"H. Wt. .72 lbs.

 # 222324ED Hikers & Drivers All-in-One Compass **$54.95**

Stay tuned in and prepared for anything, even without batteries!

In any emergency, a radio can be your lifeline to the outside world. Ours is quite possibly the most versatile and useful emergency radio ever designed with 11-band coverage, including AM, FM, TV sound, weather band, and a full array of shortwave reception; all available in any situation. Oh, and it sounds great even without an emergency!

Lifetime rechargeable batteries can keep the radio powered in four ways: 1) a built-in solar cell, 2) your car's cigarette lighter, 3) an AC wall adapter, and when all else fails, 4) a hand-operated internal dynamo. Just a one-minute crank of the dynamo provides a full 15 minutes of full-volume radio function. Makes your home and office a safer and more prepared place today.

 # 219299ED Info-Mate World Band Dynamo & Solar Radio **$69.99**

Micro flexible CCTV mounting kit.
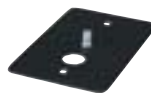
224362ED

224371ED

224389ED

A decorative and versatile mounting system that provides you a true professional look. Build 12 different mounts with the components that come in a single box. Specialty bases bought separately.

Kit includes:
- Wall, ceiling and T-Bar clip mounting
- Knob and set screw adjustment for CCTV mounts
- Shafts 2" (50.8mm), 4" (101.6mm) or 6" (152.4mm) long

PanaVise

224354ED Mounting Kit

# 224354ED	CCTV Micro Flexible Mounting Kit	**$16.95**
# 224362ED	CCTV J-Box Plate	**$8.95**
# 224371ED	CCTV Square Base	**$6.29**
# 224389ED	CCTV Tri-Foot Base...	**$7.49**

Don't ever be caught vulnerable. Wireless light anywhere the sun shines!

Dark spots around your business, house or neighborhood are vulnerable to vandalism or burglary. To protect your property, equip it with our new outdoor security lights and motion sensors. This solar outdoor security light has all the answers to your needs. All you need are simple tools to mount the unit to the wall. No complicated wiring or electrician needed. The built-in batteries are rechargeable by sunlight, so if the main power goes out you still have security lighting. The solar panel, which has a 12' cord, can be positioned for optimum light exposure.

- Lights up to 60 times on a single charge
- Charges by day, lights by night
- Complete with built-in motion detector, rechargeable battery and bright halogen light
- Easy to install   • Weight: 7.1 lbs.

219580ED   Solar Outdoor Security Floodlight **$79.95**

Just plug the mini receiving decoder into your video input, and see!

It's a wireless camera! Screws into any regular lightbulb socket.

Lightbulb camera. Just screw it in, plug in the remote, and see via TV!

The bulb looks like a standard fixture, but it really contains a min-cam and transmitting encoder in a sturdy, weatherproof enclosure. Simply screw the bulb-camera into any outdoor light socket, plug the mini-receiving decoder into any TV in your house, and you are ready to watch the piece-of-mind channel. Installation couldn't be easier.

You'll get a clear birds-eye view of your security perimeter without fishing wires through walls, drilling holes, mounting antennas, or changing and checking batteries. Transmission is through your home's own wiring. While your other outdoor lights illuminate the scene, the SecureView outdoor camera provides the picture. Feel safer today.

219379ED   SecureView Outdoor Camera and Decoder **$199.95**

Locked out again? Keep a spare key handy, but off-limits to thieves.

Never get locked out of your car or house again. Get peace-of-mind knowing a spare key is available to you, and only you.
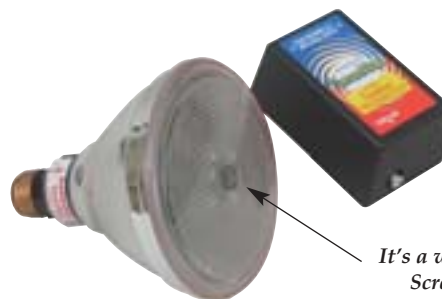
Inside the wheel well? Under the bumper? In a hollow "rock" or under a flowerpot? Hide a key near your home or car, and you've just set out the welcome mat for thieves. But now you can get to a spare key in seconds… and thieves can't get to it ever. These weatherproof 1.5-lb. key vaults molded of drillproof, sawproof titanium and zinc alloy open only when you press your preset combination on the 10-button keypad.

Mount one in minutes to your car, truck or an outside wall of your home. No need to find the perfect hiding place—even if they see it, they can't get in! Give temporary access to anyone you choose, like contractors or service workers, then change the combination and they won't get in again. The black weatherproof cover seals out moisture and dirt. The keyring built into the cover makes sure you return the key to the box for next time. Includes all mounting screws.

223925ED   Auto/SUV StorAKey with Weather Cover **$39.95**
223941ED   Home/Office StorAKey w/ Weather Cover (clay) .. **$39.95**
223933ED   Home/Office StorAKey w/ Weather Cover (white) **$39.95**

210°
140°
360°
4.5"
3.4"

Strong lever action suction cup mounts easily to any window as shown above with heavy police cam.

Mount your video camera almost anywhere. It's a snap.

As steady as a tripod but a lot handier, the Window Camera Mount lets you anchor that video camera to any glass surface at any height.

Mount your video or CCTV camera on any window or other non-porous surface, and capture what you've never been able to before. This heavy-duty metal mounting bracket attaches securely to any surface with a strong lever-activated 3.25" neoprene suction cup. Mount your camera onto the tripod-style screw. Adjust to any position, and you're ready to shoot hands-free. It's perfect for temporary surveillance of your home or business. Doing field research or traveling? Mount your camera on the passenger window of your car and narrate as you drive with both hands on the wheel. Capture wildlife in your yard, your kids in the bathtub, and much more. For cameras up to 3 lbs.

222746ED   Window Camera Mount **$39.95**

More of what you want with our new Jameco@Home catalog.

Our new Jameco@Home catalog brings our technically sophisticated customers utilitarian technology that'll make your personal life easier, more productive, and more interesting. In addition to these new products, you'll find thousands of electronic components, ICs, test equipment, connectors, power supplies and computer products that you've come to expect from Jameco.

We've grouped our new Jameco@Home products on pages 2-19, and on pages 86-87. Let us know how you like them.

Handy notes in this catalog, like the one below, will tell you when there are more products available on our website.

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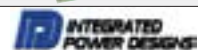
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We'll match the advertised price of any like product. It's that simple!

Our Low Price Guarantee Doesn't Get Much Use...

… And we like it that way. We take our Low Price Guarantee seriously, so we search around the world to identify the sources for the lowest prices for our high-quality products. In fact, we have a team of people dedicated to keeping up to date with our competition and their prices.

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"I recently discovered Jameco after dealing with Digi-Key for years. Your website is MUCH more useful. I love that you include pictures of each part."

Duncan

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Come to Jameco for popular electronic components, computer products, test equipment, and our latest selection of products for your home and personal use; all at unbeatable prices. You can also find those elusive and frustratingly hard-to-find items, and even some out-of-production parts, too! Join the multitudes of happy Jameco customers... You'll be glad you did.

As Your Needs Change, Jameco Changes With You

We're constantly updating our selection and making great deals based on feedback from our customers. You'll now find an expanded offering of utilitarian technology products like our new tools, optics, satellite radios, video accessories, cell phone accessories, and more great solutions on pages 2-19, and on pages 86 & 87.

Let us know what products you'd like to see in our catalog and you probably will! Please take a few seconds today to make a couple of check marks, and pop the enclosed postage-free postcard in the mail. Or, you can make the check marks on the web at www.Jameco.com/PC1. **Thanks!**

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For easy reference we have included this color code legend on every page.

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SALE REFURBISHED CLOSEOUT

Different Types of Opportunities

Save on Sale Items!
Sale products are highlighted in yellow, so you can identify items whose prices have been reduced in all quantities.

Last Chance Opportunities
Unfortunately we're not always able to restock certain hard-to-find products. In this case we'll print **blue** part numbers, so if we know there's limited stock, you'll also know.

Part No.	Product No.
155643	DC603F1

Hard-to-Find Products
Some products are no longer produced, and yet we know you need them. That's why we occasionally offer pulled or refurbished products. Pulled part numbers are clearly printed in **purple** and refurbished in **brown**. Each is backed by our standard Jameco warranty.

Part No.	Product No.
25101	MC146818

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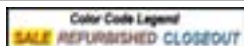
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Are you tired of loaning your latest copy of the Jameco catalog to a friend or business associate? If they can't take a hint just visit our website at **www.Jameco.com/CatReferral**. We'd be happy to send them a catalog too!

The most brilliant cell phone battery idea under the sun!

Harness the unfailing power of the sun and you'll never be stranded without cellphone power.

Cellphone dead? Never be without "juice" again. This incredible solar cellphone battery keeps itself charged on nothing more than sunlight. It features an environmentally friendly lithium-ion battery and a photovoltaic (solar) cell just like the ones that produce electricity for NASA satellites. To charge the battery, just expose the cell to sunlight. No other power source needed! A 15-20 minute charge gives enough talk time for an emergency call. A full charge takes about 5 hours. It charges even faster from your regular AC battery charger, making this the only battery you need to pack. Stuck in a hotel room with your charger at home? Place the solar battery under a bright light bulb for slow, overnight charging. A status indicator shows you whether you're charging, so you never have to guess. It's a must-have for everyone from business travelers to backpackers.

Side view attached to phone

"I have used your solar battery on my Motorola phone for two-and-a-half years in an offshore environment. It has worked perfectly. I carry it in my backpack and I know that it will work when I need it."

—K. Bullard, National Park Service

# **223950ED**	Motorola V60 Solar Battery	**$39.95**
# **223968ED**	Nextel I60/I90/I95 Solar Battery	**$39.95**
# **223976ED**	Nokia 3360/3320 Solar Battery	**$39.95**
# **223984ED**	Nokia 3390/3395/3310 Solar Battery	**$39.95**

Keep this headset on and listen to FM radio in-between calls.

Using your phone all day long? Here's a headset you can keep wearing between calls…because as soon as you hang up the phone, it entertains you with your favorite FM radio station. Great at sporting events! A lightweight clip-on module puts the simple controls at your fingertips. There's no tuner dial to distract you. Push the scan button to advance to the next clear station—no irritating static in-between. When the phone rings, touch one button to answer the call. Touch it again to end the call. No need to mute the FM—it switches on and off automatically. A high-low switch adjusts the volume for both functions. Batteries included.

# **226270ED**	Hands-Free Headset with Auto Scan Radio	**$9.95**

Cell phone battery adapters.

Cell phones are an essential item in today's world of communicating. Everyday, you recharge your cellphone battery, use your phone all day long and before you know it the battery goes low. With these cell phone battery car adapters, you can extend the power of your battery for the rest of the day by simply pluging the adapter into the cigarette lighter of your vehicle and just like that you have a second source of power while at the same time charging the battery.

# **218747ED**	Kyocera DC Power Cord	**$9.95**
# **218798ED**	Samsung DC Power Cord	**$9.95**
# **218771ED**	Ericsson DC Power Cord	**$9.95**
# **218659ED**	Motorola DC Power Cord	**$9.95**
# **218675ED**	Nextel DC Power Cord	**$9.95**
# **218667ED**	Nokia DC Power Cord	**$9.95**
# **218712ED**	Samsung DC Power Cord	**$9.95**
# **218763ED**	Motorola DC Power Cord	**$9.95**

Protecting yourself from cellphone radiation with a headset? Think again!

Don't settle for a false sense of security. Unlike regular headsets, RadFree reduces your exposure to cellphone radiation by 98%.

Concerned about the risks of cellphone radiation? Then you should know this: ordinary headsets don't protect you. In fact, ordinary headsets deliver electromagnetic radiation to your head through the electrical wire they use to conduct sound. If you want real protection from cellphone EMR, you want RadFree. Instead of electrical wire, RadFree Airwave technology uses a non-conducting acoustical chamber and tube to deliver crystal clear sound to your ear. Just speak naturally into the microphone, which includes a mute button. You can move your radiation-emitting phone up to 4 feet away from your head, reducing your exposure to cellphone radiation by 98%.

8 different ear pieces included to assure the perfect fit.

# **227168ED**	RadFree Airwave Headset for 2.5mm headset	**$29.95**
# **227109ED**	RadFree Airwave Headset for Nokia Phones	**$29.95**

Audio/Video Adapter (CAT 5 UTP)

• Converts impedance of video/audio signals to 100Ω for transmission over CAT 5 UTP cable
• Supports both NTSC or PAL video signals
• Built-in impedance matching device and filter for video and audio signal transmission
• Use with existing premises wiring & wall jacks for easy & cost effective installation   • Video transmission distance: 1000'color/2000' B/W
• Signal pairs: video (BNC), CAT pair 4 (RJ45); audio 1 (RCA); CAT pair 3 (RJ45); audio 2 (RCA), CAT pair 2 (RJ45)

Includes: 1 RCA to BNC adapter & 2 mounting screws

# **220880ED**	Audio/Video Adapter (CAT 5 UTP)	**$42.95**

Mounts easily to your car winshield.

Never get lost or surprised by a storm again.

Get accurate weather and navigational information and arrive faster without unpleasant surprises.

Mount this precision compass and weather station on your car windshield and hit the road knowing not just where you're heading, but what you're heading into. The holographic LCD panel displays your direction, inside and outside temperature and barometric pressure. Press a button to see altitude and a weather forecast of sun, clouds or rain. If outside temperatures dip to 35°, a flashing "Ice Alert" warns you of skid conditions. Set a bearing point, and the compass warns if you veer off-course. Activates and deactivates automatically to save battery life. Backlight comes on automatically after dark. Includes suction mounting bracket, 3V long-life lithium battery and 12V DC adapter (for emergency use with car lighter outlet). 2-year manufacturer's warranty.

222316ED   Car Compass Navigator & Weather Forecaster .. **$119.95**

Rock'n'Roll in peace! This headset stifles the racket outside!

Collapsible, comfortable, portable and packable; this noise-canceling headset from Sennheiser.

This folding headset from Sennheiser brilliantly reproduces the sounds you want to hear while muting stressful environmental noise. Use as headphone replacements and you'll actually hear your music. Use alone and block out background noise while still carrying on a conversation! It works on a simple principle of physics: sound is canceled by anti-sound that's phase-shifted through 180°. Just flip the switch on the NoiseGard™ console, and grating sounds like traffic, airplanes and urban warfare are instantly hushed by up to 15 dB. Perfect for travel, they fold compactly and slip into a dual-compartment padded belt pouch that's roomy enough for both the headset and portable electronics. Headphone freq. resp.: 10-21,000Hz. Impedance 300 Ohm. Total Harmonic Distortion: 0.1%. Sound pressure level: 106 dB(SPL). 2 AA batteries included. 2-year manufacturer's warranty.

Folds to fit into included carrying case.

227088ED   Sennheiser Telephone Headset **$149.95**

Jump-start your car or fix a flat anywhere, without a stranger's help.

A test meter shows the condition of your battery, so you won't waste time if it's not the problem.

Worried about getting stranded on the road? Not when you pack your self-contained battery starter and air compressor! Just clamp the cables onto your battery terminals and start your car. Pump up a flat with the 260-PSI air compressor and drive to a service station to get it fixed. No phone calls. No waiting. No putting yourself at the mercy of strangers. But that's not all. You also get a built-in worklight and 12VDC car-type outlet that can power TVs, coolers and cellphones for up to 50 hours. Recharge the jump-starter from an AC outlet or your car's cigarette lighter using the AC and DC adapters (included). Output: 12VDC, 900 amps peak, 400 amps starting power.

223888ED   Jump Starter with 260 PSI Air Compressor **$49.95**

The 10-second test that could prevent a lifetime of regret.

As small and portable as a cigarette lighter, Alc Alert displays blood alcohol level, showing when it's not safe to drive. *

No one gets behind the wheel intending to wreck lives. But each year thousands do just that when they misjudge the amount of alcohol in their system. Now there's a simple way to make sure it doesn't happen to you or those you care about.* Alc Alert quickly and discreetly checks blood alcohol level in less than 10 seconds. Just blow as if cooling soup on a spoon. At the sound of 3 beeps, stop and read the results. It's that easy. Buy one for yourself. Give them to everyone you cherish. Makes a thoughtful employee gift. Party guests actually have fun testing themselves. Gas sensor digital technology measures blood alcohol level (BAC) from .0% to .12%. The backlit display can be read in a dark car. Runs on 2 AAA batteries (included). Size: 3.5" x 1.25" x 0.5".

* No device, no matter how sensitive, can substitute for common sense. If you think your ability to drive may be impaired even slightly, no matter what the test results show—don't drive.

Just breath and get results in seconds.

222332ED   Alc Alert Breath Alcohol Detector **$49.95**

Special Purchase Limited Quantities! Only $39.95
Suggested Retail $169.95

Mounts neatly to the side of your monitor.

Originally $189.99 Now $29.95

Back View   *Front View*

Surge supressor stops under-desk crawling, bad backs, & toe cramps.

Use our remote control surge suppressor and stop crawling under your desk or flipping on your equipment power with your toe. Just place the small remote control strip anywhere easily at hand, up to 6 feet away from the outlet strip. Attach the remote control to the side of your monitor with the enclosed adhesive strips, if you like, to keep your desktop clear. Then power up 4 plugs, or turn off specific outlets with a touch of a button. One plug stays live continuously. The extra long power cord lets you place the base unit up to 9 feet from your wall outlet.

Free $25,000 Equipment Protection Policy
Kensington is so sure their product will protect both your equipment and phones that they back it up with The Kensington Limited Lifetime Warranty that protects your equipment for up to $25,000 against damage (see package for details).

- EMI/RFI filtering: attenuation up to 40dB with frequency range of 600kHz-26MHz
- Energy rating: 420 joules (140 each line)
- Clamping voltage: 330V; telephone protection @ 465V
- Size: outlet strip 12.5"L x 3.0"W x 3.5"H; remote 6.5"L x 2.0"W x 1.0"H
- Current peak: 39,000A
- 5 outlets/3 switches
- UL listed
- 15A circuit breaker
- Failure indicator light
- Weight: 2 lbs.

211203ED   MasterPiece Plus Remote **$39.95**

Share printers, files, and DSL inexpensively through the phone wiring already in your home!

Don't waste money on separate printers, modems and Internet connections. Install the AnyPoint Home Network, and let everyone share at speeds of up to 1Mbps.

Multiple PC users in your house? Turn your home phone wiring into an instant network for sharing printers, files, modems, applications, DSL lines, Internet access, and for playing interactive games. This inexpensive solution lets computers up to 500 feet apart communicate over existing phone wiring. There's no drilling or cable snaking from room-to-room. And you don't lose a single phone jack or printer port. Installation is easy. The manual is excellent, and you get 90 days support free. Package includes hardware and software for networking 2 PCs: 2 adapters (Intel 21145 phone line/Ethernet LAN controller), 2 parallel cables, 2 phone cables, 1 CD-ROM. Purchase an additional package for each 1-2 PCs. Requires 486 PCs or higher, Windows® 95/98, 8 MB RAM, 18 MB hard disk space, parallel port for printer use. At least one PC must have CD-ROM drive, modem, Internet access.

220417ED   Any Point™ Home Network **$29.95**

7.5" extension cable included

One simple tool and you have two computers at your command.

This two port switch box can access TWO computers from one keyboard, mouse, and monitor. No interface card or software to configure. Operation is as simple as pushing a button on the front panel and entering hot-key commands.

- Supports Microsoft®IntelliMouse, Logitech Net Mouse, etc.
- Supports operating systems DOS, Win 3.x, Win95/98/98SE/2000/ME, WinNT, Netware, Unix, Linux   • High VGA resolution
- Keyboard and mouse pluggable at anytime
- Hot-key function allows easy computer access
- Audible sound for switching port confirmation
- Port and console connectors: female PS/2 keyboard and mouse, female HDDB15 for video   • Size: 4.3"L x 3.0"W x 1.2"H

216063ED   2-Port K/V/M Switch Box **$69.95**
204062ED   PS/2 cable **$16.95**

Expand your single USB port into a stacked 3-port thumbhub.

- USB Revision 1.1 compliant
- Downstream port with OCD (over current detection) and OCP (overcurrent protection)
- LED indicators uplink/down port communication, and OCP status
- Supports full speed (12Mbps) and low speed (1.5Mbps) transfer rate
- Self-powered mode
- Compatible with Windows® 98/98SE/2000/ME/MAC OS8.5
- Size: 3.1"L x 0.8"W x 1.2"H
- 7.5" extension cord included

208451ED   External 3-port USB Thumbhub **$18.95**

PCMCIA Wireless Card for Laptops

USB Wireless Transceiver for Desktop Computers

Wiress 802.11b Base Station

Your solution for seamless roaming

Wireless networking provides students, workers and laptop users seamless roaming connectivity to your network or cable modem. PHOEBE 802.11B wireless products are perfect for small businesses, schools and for the home, and will boost productivity while saving you the cost of installing cables throughout your building or home. Simply plug-and-play and you have a connection to your network in minutes. Jameco has reviewed a lot of networking products and companies over the last 12 months and has chosen PHOEBE Micro's products because they offer the best value, performance and quality. The wireless access-point-unit bridges wired and wireless segments of the network. The wireless USB LAN adapter can be used to extend your existing network to remote sites in your building.

- DSSS (direct sequence spread spectrum) provides superior noise immunity to broadband interference
- 11 channels
- 64/128bits WEP encryption
- Freq. bandwidth: 2.4 ~ 2.4835GHz
- IEEE802.11b standard

220652ED	215600ED	215618ED
Transmission power: 18dBmAccess point, access point client & wireless bridge operation mode-82dBm	5MHz Channel spacing PCMCIA Type II; built in 3D antenna Indoor range: up to 50 meters Outdoor range: up to 300 meters -80dBm	Channel spacing: 5MHz Interface: USB1.1 (client) Indoor range: up to 90 meters Outdoor range: up to 300 meters -80dBm

# **220652ED**	Wireless Access Point 11MBps	**$97.95**
# **215600ED**	PCMCIA Wireless Network Card	**$52.95**
# **215618ED**	Wireless USB Adapter	**$59.95**

# Charge and sync your PALM or IPAQ with one cable; thin as a shoelace.

A boon for frequent travelers, ZipLinq manage all your PDA power and data transfer functions with a single cable. No charger cradle needed.

Imagine being able to charge the battery on your PDA, sync it to your PC, and download contacts…all with a single cable as flexible as a shoestring. If you're always on the go, the ZipLinq PDA cable is your new best friend. Lighter and more flexible than any cable you've ever seen — even a phone cord — ZipLinq transfers data at speeds up to 12 MBps while simultaneously charging your PDA battery. When it's done, the 2-1/2' cable zips away into a durable case the size of a coat button. Now you see it…now you don't.

| # **226350ED**	Palm Sync-N-Charge for ME00s, 1750 and M130	**$13.95**
# **226333ED**	IPAQ Sync-N-Charge for 36xx and 37xx series	**$13.95**
# **226341ED**	IPAQ Sync-N-Charge for PC38x, 39x & 5400 series	**$13.95**

New cat 6 technology improves performance effortlessly.
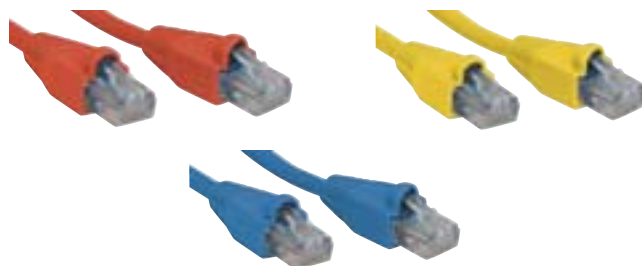
The difference between category 5e and category 6 is in the transmission performance, and extension of the available bandwidth from 100 MHz for category 5e to 200 MHz for category 6. This includes better insertion loss, near end crosstalk (NEXT), return loss, and equal level far end crosstalk (ELFEXT). These improvements provide a higher signal-to-noise ratio, allowing higher reliability for current applications and higher data rates for future applications.

Although category 6 and category 5e connectors may look alike, category 6 connectors have much better transmission performance. This means that a category 6 connector couples about 1/12 of the power that a category 5e connector couples from one pair to another pair. Conversely, one can say that a category 6 connector is 12 times less "noisy" compared to a category 5e connector. This vast improvement in performance was achieved with new technology, new processes, better materials and significant R&D resources, leading to higher costs for manufacturers.

# 219758ED	Cat 6 Patch Cable Black 3'	$6.29
# 219766ED	Cat 6 Patch Cable Black 7'	$7.99
# 219774ED	Cat 6 Patch Cable Black 14'	$8.99
# 219782ED	Cat 6 Patch Cable Black 25'	$13.49
# 219791ED	Cat 6 Patch Cable Black 50'	$22.49
# 219854ED	Cat 6 Patch Cable Blue 3'	$6.29
# 219862ED	Cat 6 Patch Cable Blue 7'	$7.99
# 219871ED	Cat 6 Patch Cable Blue 14'	$8.99
# 219889ED	Cat 6 Patch Cable Blue 25'	$13.49
# 219897ED	Cat 6 Patch Cable Blue 50'	$22.49
# 219707ED	Cat 6 Patch Cable Gray 3'	$6.29
# 219715ED	Cat 6 Patch Cable Gray 7'	$7.99
# 219723ED	Cat 6 Patch Cable Gray 14'	$8.99
# 219731ED	Cat 6 Patch Cable Gray 25'	$13.49
# 219740ED	Cat 6 Patch Cable Gray 50'	$22.49
# 219803ED	Cat 6 Patch Cable Green 3'	$6.29
# 219811ED	Cat 6 Patch Cable Green 7'	$7.99
# 219820ED	Cat 6 Patch Cable Green 14'	$8.99
# 219838ED	Cat 6 Patch Cable Green 25'	$13.49
# 219846ED	Cat 6 Patch Cable Green 50'	$22.49
# 219900ED	Cat 6 Patch Cable Red 3'	$6.29
# 219918ED	Cat 6 Patch Cable Red 7'	$7.99
# 219926ED	Cat 6 Patch Cable Red 14'	$8.99
# 219934ED	Cat 6 Patch Cable Red 25'	$13.49
# 219942ED	Cat 6 Patch Cable Red 50'	$22.49
# 220003ED	Cat 6 Patch Cable White 3'	$6.29
# 220011ED	Cat 6 Patch Cable White 7'	$7.99
# 220020ED	Cat 6 Patch Cable White 14'	$8.99
# 220038ED	Cat 6 Patch Cable White 25'	$13.49
# 220046ED	Cat 6 Patch Cable White 50'	$22.49
# 219951ED	Cat 6 Patch Cable Yellow 3'	$6.29
# 219969ED	Cat 6 Patch Cable Yellow 7'	$7.99
# 219977ED	Cat 6 Patch Cable Yellow 14'	$8.99
# 219985ED	Cat 6 Patch Cable Yellow 25'	$13.49
# 219993ED	Cat 6 Patch Cable Yellow 50'	$22.49

◄ *Plier multi-tools fold down.*

(A)   (B)   (E)   (G)

(C)   (D)   (F)
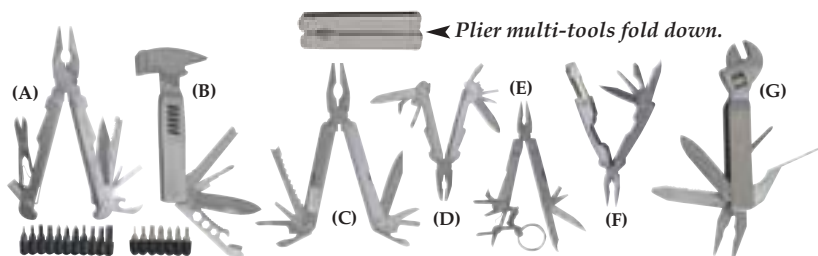
Every tool you need…everywhere you go.

These heavy-duty all-in-one tools are handy for the car, camping, fishing and hunting; but you'll also find them indispensable for urban living.

Keep every tool you need at your fingertips…literally. Folded, these multi-function stainless steel tools fit in the palm of your hand or slip into the provided sheath on your belt. Perfect for students and others who don't want to spend a lot on tools they need only occasionally. Great gift for the handyman or sportsman.

 # 227205ED   21-in-1 Multi-Tool (A)   4.75" closed   10.8 oz. **$19.95**
Includes handyman long nose pliers, wire cutter, saw blade, locking knife blade, scissors, can/bottle openers, pry bar, flat head screwdriver, 4 flat head screwdriver bits, 3 Phillips screwdriver bits, 4 hex bits, and a 1/4" nut driver.

 # 227213ED   19-in-1 Multi-Tool (B)   5.0" long   10.1 oz. **$19.95**
Includes hammer, 2 nail removers, can/bottle opener, knife blade, 2 saws, 3 nut drivers Phillips screwdriver, 2 flat head and 3 Phillips screwdriver bits, and 2 hex bits.

 # 227192ED   13-in-1 Multi-Tool (C)   4.0" closed   5.5 oz. **$19.95**
Includes handyman long nose pliers, wire cutter, knife blade, can/bottle openers, metal file, 3" ruler, awl, 2 flat head screwdrivers, Phillips screwdriver, pry bar, and nail pick.

 # 227184ED   11-in-1 Multi-Tool (D)   3.0" closed   2.5 oz. **$19.95**
Includes handyman pliers, wire cutter, knife blade, can/bottle opener, wood & metal files, hex nut drivers, awl, a mini and regular flat head screwdriver, and Phillips screwdriver.

 # 227221ED   11-in-1 Multi-Tool (E)   2.5" closed   2.0 oz. **$11.95**
Includes handyman long nose pliers, wire cutter, knife blade, can/bottle openers, metal file, nail pick, scissors, flat head screwdriver, Phillips screwdriver.

 # 227264ED   9-in-1 Multi-Tool (F)   2.75" closed   3.0 oz. **$11.95**
Includes spring loaded pliers, wire cutter, LED light, knife, bottle opener, metal file, nail pick, and both a Phillips and a flat head screwdriver.

 # 227176ED   8-in-1 Multi-Tool (G)   6.0" long   9.9 oz. **$19.95**
Includes adjustable crescent wrench, spring loaded long nose pliers, wire cutter, knife blade, saw, flat head screwdriver, Phillips screwdriver, and metal file.

Save $50, but hurry! Limited quantity of the best color & waterproof pocket GPS.

Quite simply, the Magellan Meridian is the ultimate handheld GPS navigator. In your car, skipping across the water in your boat, strolling in the city, or hiking on the trail, this waterproof wonder with full-color 160x120 pixel backlit display and 3-meter accuracy will make your exact location jump off the screen.

The built-in mapping database features 16MB of cities, highways, landmarks, airports, and waterways in North America. Now, you can go exactly where you want to go with unparalleled ease. Its extra large and bright screen displays your exact location and surroundings, including roads, interstates, parks and other points of interest.

An integrated compass, speedometer and extensive text readouts show you everything you need to know to make your trips safer, easier and a lot more fun.

For only $139.95 extra, you'll receive both an additional 32MB of memory (16MB more than our biggest competitors) and the MapSend software package that gives you incredibly detailed, street-level mapping capability. In fact, when you get your Meridian receiver, the only thing you won't be able to find is a better deal. We have a limited quantity. Order today.

Software & 32MB Memory Card

 # 219491ED   Magellan Meridian and Software GPS   ....Was $499.95 Now $449.95
 # 219571ED   GPS MapSend Software & 32MB Memory   Was $149.95 Now $139.95

See in total darkness. Infrared Monocular gives you an edge.

Like the infrared goggles worn by the U.S. military, Bushnell Night Vision lets you see them, but they can't see you.

See in the dark without disturbing or alerting others. Night Vision Monocular uses military-grade image intensification technology to let you see clearly for up to 300 feet, even in pitch blackness. It's perfect for campers, hunters, hikers and wildlife enthusiasts… essential for surveillance and search-and-rescue work. Night Vision collects and amplifies the minute amount of light that exists even in what we perceive as pitch black. It converts the light into electrons that strike a phosphor screen, producing a detailed image just the way your TV does. High-speed f1.5 objective lens with 2.4X image magnification. FOV of 79 feet at 100 yards. Weighs 17 oz. with 2 AA batteries (included). Comes with roomy padded carry case with adjustable shoulder strap. 1-year manufacturer's warranty.

 # 219694ED   Night Vision Monocular and Case $199.00

H₂0-proof binoculars offer ringside seating through rain, sea and even spilled beer.

The only binoculars you need to own, they'll take you through rain, sleet, snow, and wild weekends.

A great gift idea for the outdoor or concert enthusiast at a fantastic price. These 8X compact Bushnell binoculars are completely impervious to wet weather, boating activities, water sports and even the occasional sailing beverage. And at this price, they're a tremendous value even if you live in the Sahara. Rubber armoring and O-rings seal out moisture. Nitrogen purging eliminates fogging, even in wet weather. Multi-coated optics ensure durability, clarity and reduced glare. Roll-down eyecups accommodate glasses. Offers a center focus, 25mm objective lens, and 370' field-of-view at 1000 yards.

Includes: Carry case with belt loop, neck strap and lens cloth.

 # 220409ED   Bushnell H₂O Binoculars $44.95

Mini cooler / warmer works in your car, office, or almost anywhere!

11"

9 ³/₄ "

7 ³/₄ "
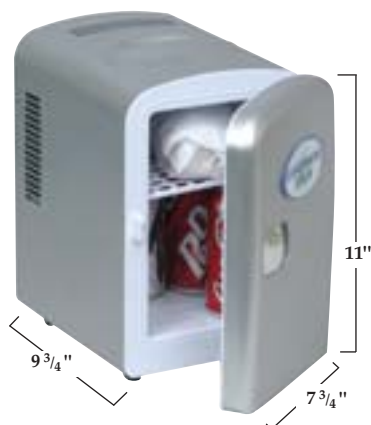
Lighter or Standard Plug !

Don't bother with the nasty office fridge. Keep a six-pack, your lunch, a snack, or anything else at hand; and at optimal refreshment temperature. Our handy, stylish and convenient mini-fridge and warmer is high-tech and CFC-free. Cools 20-25°F from the ambient temperature or keeps food warm at up to a max of 154°F. Operating on either house current or power from your vehicle's lighter socket, the fridge handles a big 4-liter capacity to keep an ample supply of provisions fresh and ready to serve. Auto-shutoff and restart prevents problems.

219310ED   Mini Cooler & Warmer **$79.99**

2X magnifier gets you a closer look.

This folding 2X magnifier is very popular among professionals needing a large view magnifier plus the convenience of portability. Made of high quality plastic, the frame is light with a precision glass lens. An easy-to-read scale in both inches (scale of 1/16") and millimeters are etched on the base.

Size unfolded is 6.1"W x 5.3"D x 6.5"H.

218296ED   Wide View 2X Foldable Magnifier **$9.95**

Fresh air in the worst traffic.

If you think the air is bad outside during your commute, it could be even worse inside your car. With the windows rolled up, your in-car environment may be concentrating the pollutants. Chances are, you and your car need a healthy shot of pure, fresh ionized air.

Simply plug this compact, self-contained device into your cigarette lighter and it goes to work immediately, removing dust, cigarette smoke, odors and even airborne bacteria to create a clearer, healthier indoor atmosphere. Order one today, and see how billions of negative ions can have a positive effect on you and your health.

219352ED   Auto Air Purifier & Ionizer **$19.95**

Blow those crumbs away!

Keeping your costly electronic equipment debris-free can be the difference between enjoying your valuable freetime or repairing broken equipment.

Now you can use the same cleaning system that computer and copy-machine techs use nationwide. Its high power and 4-piece Micro Cleaning Tool Kit gets into all the nooks and crannies of your keyboard, computers, fax machines, printers, and scanners to bring them back to clean-room condition. Plus, its custom carrying case makes it easy to ensure high level performance of every thing you own.

219256ED   Data Vac Pro Computer Cleaning System **$68.95**
219264ED   Disposable Bags **$4.99**

Daytime

Nighttime

Hang it, or use it on the enclosed post!

Get your address noticed without wiring hassles!

Your friends, the pizza delivery guy, and if the need ever arises, emergency services won't miss your house again because you forgot to turn on the light. Our fully customizable, illuminated sign announces your address with clarity and class, day and night. Its sealed solar panel and rechargeable power cells mean you won't have to worry about running wires, changing batteries, or wasting electricity. On at sundown, off at dawn, this sign is a fully automatic, weatherproof and theft resistant way to make sure your house is found. Hang it on your home, or use the enclosed post. Works like a charm.

219272ED   Solar-Powered House Light **$49.95**

Aerospace-designed wrench works in half the space of others!

With a ratcheting angle of just 30°, these wrenches work where others don't. Why didn't someone think of it sooner?

Now, *this* is cool. If you've ever found yourself under a kitchen sink, cursing and bleeding while trying to get at a tough nut, listen up. These wrenches developed for the aerospace industry ratchet in just 30° of space – *half* the space of other open-end wrenches. So you can install or remove nuts and bolts in extremely tight spots in seconds. The more torque you apply, the tighter the movable head grips the fastener, so you can forget about slipping or stripping. Yet you can slip them off with ease—no wiggling. The wrenches are made of solid 17-4 stainless tool steel, so they can't flake or chip like chrome-plated tools. The SAE set fits 3/8"-7/8", 1/2"-9/16", 5/8"-11/16". The metric set fits 10-12, 13-14, 15-17. They're so indestructible, the AldenWrench guarantees them for life!

223896ED   Open-End Ratcheting 3-Piece Wrench Set (SAE) **$34.95**
223909ED   Open-End Ratcheting 3-Piece Wrench Set (Metric) **$34.95**

29-piece driver socket wrench set.

Kit includes:
- Flank drive socket (6 pt): 4mm, 4.5mm, 5mm, 5.5mm, 6mm, 7mm, 8mm, 9mm, 10mm, 11mm, 12mm, and 13mm
- Slotted bit: 4mm, 5.5mm, and 7mm
- Hex bit: 3mm, 4mm, 5mm, 6mm, and 8mm
- Phillips bits: #1 and #2   • Pozi bits: #1 and #2
- Extension bar with spinner handle • Universal joint
- 2" extension bar   • Sliding T-bar
- Pear-type ratchet handle with quick release

226229ED   29-Piece Driver Socket Wrench Set............................ **$29.95**

Now drive screws in hard-to-reach places, even around corners.
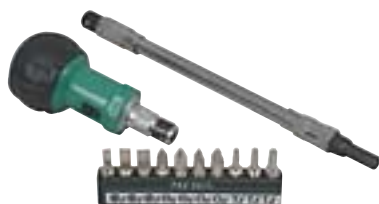
This mini-ratcheting handle and 7.5" flexible shaft makes it easy for you to loosen and tighten hard-to-reach screws.

Includes: Flexible shaft (190mm), mini ratchet handle that has forward, reverse and conventional settings, slotted bits (4mm, 5mm &6mm), Phillips (#1 & #2 bits), Pozi (#1 & #2 bits) and TORX (10, 15 & 20mm bits)

223802ED   Flexible Ratchet Driver Set **$7.95**

Save time and your wrist. Projects never seemed this easy.

Get 40 inch/lbs. of torque for starting and finishing screws. Our 4.8 volt rechargeable cordless screwdriver with a 180 RPM motor has a spindle lock for greater control. Includes 2 magnetic bit holders, 11-piece bit set (5 slotted, 3 phillips, 3torque), and power supply at no extra cost.

- Narrow nose for extended reach in tight places
- Construction grade quality   • Recharges in 7 – 9 hours
- Size: 10.5" long   • Weight: 1.4 lbs.

211254ED   Cordless Screwdriver Set **$18.95**

Those hard to reach areas? This simple tool does the trick.

The handle of this twin wrench driver set has two tips, horizontal and vertical for those hard to reach areas. Included in the set are:

- Non-slip double ended driver
- Three slotted bits: 4mm, 5mm, and 6mm
- Philips bits: #1 and #2
- Pozi bits: #1 and #2
- TORX bits: 10mm, 15mm, and 20mm
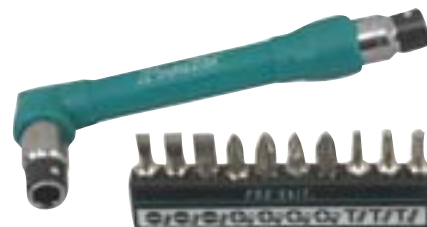
223811ED   Twin Wrench Driver Set **$3.95**

Handy and compact offset ratchet bit and socket driver set.

This offset ratchet and socket driver set is comprised of 6 hexagon sockets made from quality hardened carbon steel. The handle features a 1/4" male-head drive to accommodate the bits and sockets with this set.

Kit includes:
- Slotted bits: 4mm, 5mm, and 6mm   • Slotted bits: #1 and #2
- Pozi bits: #1 and #2   • Torx bits: T10, T15, and T20
- Hex sockets: 3/16", 7/32", 5/16", 11/32", and 3/8"
- Reversible driver handle with male head

226069ED   17-Piece Offset Ratchet and Socket Driver Set **$7.49**

Handy precision screwdrivers.

Projects will be easier and more enjoyable with this precision screwdriver set.

Kit includes:
- 0.9mm, 1.2mm, 1.4mm, 1.8mm 2.4mm, and 3mm slotted screwdriver
- #00, #0, #1and Phillips screwdriver
- Awl
- Magnetic pick-up

 # 226093ED   11-Piece Precision Screwdriver Set.............................. **$4.49**

33-piece ratchet driver set.

High torque reversible ratchet handle with forward, reverse, and conventional settings. Magnetic shaft holds steel screws to bit for easy positioning. Bits can easily be stored in handle for easy transport.

Kit includes:
- Reversible ratchet handle
- Torx bits: T6, T7, T8, T9, T10, T15, T20
- Nut bits: 3/16", 9/32", 5/16", 11/32", 7/16"
- Hex bits: 1.5mm, 2.0mm, 2.5mm, 3mm, 4mm, 5mm, 6mm, 8mm
- Pozi bits: #0, #1, #2
- Phillips bits: #0, #1, #2
- Slotted bits: 3mm. 4.7mm, 6.3mm   • 50mm adaptor
- Size: 9.1"W x 7.6"H x 2.0"D   • Weight: 1.7 lbs.

 # 226051ED   33-Piece Ratchet Driver Set **$19.95**

Compact, heavy-duty metric nut drivers.

This set of heavy-duty nut drivers are ideal for service/repair or manufacturing environments or anywhere you encounter small metric components.
- Metric
- Molded plastic case
- 31.35mm shaft hole depth

Includes:
4mm through 8mm, 10mm, 11mm, 13mm

 # 218042ED   Xcelite Heavy Duty Nut Driver Kit............................ **$59.95**

Didn't find what you are looking for here? You'll find our entire line on our website. Log on today!

www.Jameco.com

30 well-organized and identified bits.

A 30-piece bit set organized in a neat, compact storage drum. All bits are compatible with power tools, rechargeable drills, and multi-bit screwdriver handles.

Set includes:
- Nut bits: 7/16", 3/8", 11/32", 5/16", 9/32", 3/16"
- Hex bits: 3/16", 1/8", 7/64", 5/64"
- Torx bits: T10, T15, T20, T25, T30
- 2 screw aligners
- Phillips bits: #0, #1, #2, #3
- Pozi bits: #1, #2, #3
- Slotted bits: #3, #4, #5, #6, #7
- Bit holder

 # 227230ED   30-Piece Bit with Drum Organizer **$9.95**

Finally, security bits needed to bypass those bizarre screwheads.

This security bit set contains most of the bits commonly used in today's electronic products to make them tamper resistant. Now you can open the cases of these products to repair them without damaging the case or screw. Bits are housed in a honeycomb plastic case.

Kit contains:
- Torx bits: 4mm, 6mm, 8mm, & 10mm
- Tri-wing bits: #1, #2, #3, and #4
- Security hex bits: 2mm, 2.5mm, 3mm, 4mm, 5mm, and 6mm
- Security hex bits: 5/32", 9/64", 1/8", 7/64", 3/32", and 5/64"
- Security torx bits: T8, T10, T15, T20, T25, T27, T30, T35, and T40
- 60mm magnetic bit extension

 # 223829ED   32-piece Security Bit Set **$11.95**

Super-bright, waterproof and shockproof LED flashlight.

Need to depend on a flashlight that always works? Its super bright white LEDs have a life of at least 11 years of continuous use. This heavy-duty flashlight is waterproof and designed for all weather conditions. It's shockproof casing was built to withstand a drop from 4'. LED flashlights have a low cost per hour of operation because batteries last 14 times longer than in conventional flashlights. The 10-LED flashlight lasts a month of continuous use on three "D" cell batteries. The 7-LED flashlight uses 3 "C" cell batteries and lasts 25-days of continuous use. The 4-LED model lasts 14-days of continuous operation using three "AA" cell batteries.

# 215677ED	10-LED 10.6" Flashlight	$59.95
# 215685ED	7-LED 8.9" Flashlight	$49.95
# 215693ED	4-LED 7.9" Flashlight	$34.95
# 185261ED	4x AA, 1600mAh Rechargeable Batteries	$13.95
# 197000ED	2x C, 2300mAh Rechargeable Batteries	$8.95
# 196998ED	2x D, 2300mAh Rechargeable Batteries	$8.95

Grind, sand, polish, engrave, file, drill, brush... all with one tough tool!

There's almost no mechanical job around your house or workbench that can't be made faster and easier with this heavy-duty variable-speed rotary tool.

Destined to become the most-used tool at your workbench or around your home, this variable speed rotary tool with 40-piece accessory kit does it all. Grind, file, cut, engrave, polish, drill – you'll wonder what you ever did without it! Adjust the speed infinitely from 8,000 to 30,000 RPM without stopping. High speed and low torque do all the work, so you can guide the tool effortlessly and precisely. A handy shaft-lock button lets you swap accessories quickly. Built with a tough nylon housing and 18 AWG cord, it can take any abuse you dish out.

You get all this in a heavy-duty plastic carrying case:

• 9" long variable speed rotary tool
• Drum sander wheel
• Drum sander pads
• Felt buffing pads
• Grinder dressing stone
• Disk sanding arbor
• Disk sanding pads   • Disk grinder
• 10-piece rotary grinders   • Drill bit
• 4-piece rotary files   • Wrench
• 1-year manufacturer's warranty

 # 211289ED   Electric Grinder **$44.95**

Description	EXPANSION BIT SETS Choose the right set for the job.							
For images please visit www.Jameco.com.	226616ED	226675ED	226624ED	226632ED	226608ED	226667ED	226641ED	226659ED
Band sander, 3/8"Dia.	10	5						
Band sander, aluminum oxide, 1/2"Dia.	10							
Brush bit, bristle, 9/16"Dia.							1	
Brush bit, copper, 3/8"Dia.							1	
Brush bit, steel, 9/16"Dia.		1					1	
Brush wheel bit, bristle, 1.0"Dia.							1	
Brush wheel bit, copper wire, 1.0"Dia.		1						1
Brush wheel bit, copper wire, 3/4"Dia.								1
Brush wheel bit, copper, 1"Dia.							1	
Brush wheel bit, steel, 1.0"Dia., 1-3/4"L							1	
Cork bit, cylindrical, 1/4"Dia., 1.8"L								
Cork bit, cylindrical, 5/16"Dia., 2.0"L						1		
Cotton bit, 5/16"Dia., 1-3/4"L		1				1		
Cotton bit, 5/16"Dia., 1-7/8"L						1		
Cut-off wheel, alum. carbide, 7/8"Dia., 0.01"T					4			
Cut-off wheel, alum. carbide, 15/16"Dia., 0.02"T (metal)		8			18			
Cut-off wheel, alum. carbide, 15/16"Dia., 0.02"T (wood)		4			6			
Cut-off wheel, alum. carbide, 1.0"Dia., 0.02"T					18			
Cut-off wheel, alum. carbide, 1-1/4"Dia., 1/16"T					4			
Drum sander, 1/2"Dia.	1							
Drum sander, 3/8"Dia.	1	1						
Engraver point, 5/64"W, 1-3/4"L (bullet tip, round cut)		1	1					
Engraver point, 0.1"W, 1-3/4"L (fine point, V-cut)			1					
Engraver point, 0.1"W, 1-3/4"L (ball tip)			1					
Engraver point, 1/8"W, 1-3/4"L (ball tip)			1					
Engraver point, 0.15"W, 1-3/4"L (shaft, flat cut)			1					
Engraver point, 5/32"W, 1-3/4"L (flat head)		1	1					
Engraver point, 5/32"W, 1-3/4"L (arrow head, V-cut)			1					
Grinding stone bit, alum. oxide, 1/8" & 5/32"Dia.				1				
Grinding stone bit, alum. oxide, 3/16"Dia. (bullet head)				1		1		
Grinding stone bit, alum. oxide, 3/16"Dia. (cylindrical)				1		1		
Grinding stone bit, alum. oxide, 1/4"Dia. (blunt nose)				1		1		
Grinding stone bit, alum. oxide, 1/4"Dia. (cylindrical)		1		1		1		
Grinding stone bit, alum. oxide, 1/4"Dia. (tear drop)				1				
Grinding stone bit, alum. oxide, 1/4"Dia. (bullet head)		1		1				
Grinding stone bit, alum. oxide, 5/16"Dia.		1		1				
Grinding stone bit, alum. oxide, 1/2"Dia. (blunt nose)		1		1				
Grinding stone bit, alum. oxide, 1/2"Dia. (tear drop)				1				
Grinding stone wheel, aluminum oxide, 7/8"Dia.		1						1
Grinding wheel, aluminum oxide, 7/8"Dia.								1
Mandrel bit, 1/8"W, 1-13/16"L		1						1
Wool polishing wheel, 1/2"Dia.								1
Wool Polishing wheel, 1.0"Dia.		1						1

 # 226616ED   22-Piece Drum Sander Set **$11.95**
 # 226675ED   30 Piece All Purpose Bit Set.. **$28.95**
 # 226624ED   7-Piece Engraving Cutters Bit Set **$17.95**
 # 226632ED   10-Piece Grinding Stone Bit Set... **$10.95**
 # 226608ED   50-Piece Cut-Off Wheel Set **$24.49**
 # 226667ED   Cylindrical Grinding and Polishing Set **$9.99**
 # 226641ED   6-Piece Rotary Brush Set... **$15.95**
 # 226659ED   7-Piece Rotary Finishing Set.. **$9.99**

Designed for the perfect cut.

Cut smooth accurate holes from 3/4" to 5" diameter in drywall, wood, plaster, aluminum, laminates, and plastic. With the 1/4" and 3/8" mandrels you can use it with any battery or electric drills.

• Hole saw diameters:
  3/4", 7/8", 1⅛", 1¼", 1½", 1¾", 2", 2½", 3", 3½", 4", 5"
• 1/4" & 3/8" drive mandrels   • Allen wrench
• Size: 8.0"L x 6.0"W x 1.9"H   • Weight: 2.8 lbs.

 # 211262ED   12-Piece Hole Saw Kit **$18.95**

Juice NiMH batteries yourself!

Charge your AA or AAA NiMH batteries with this 8-hour battery charger. Simply plug into a wall outlet. Red LED indicates charging and green LED indicates ready to use.

• Charging bay allow 4AA or 4AAA batteries to be charged at the same time
• Output: 4AA 1.35V @ 250mA or 4AAA 1.35V @ 95mA
• Size: 2.8"W x 2.4"D x 4.6"H   • Weight: 1.0 lb.

 # 217533ED   NiMH Battery Charger **$7.95**

Avoid costly downtime.

This compact, handheld Data-Vac electric duster is far less expensive and better for the environment than canned air. It quickly and easily blows dust, lint and debris off keyboards, computers, printers, disk drives, fax machines, photographic and other high-tech equipment. That helps prevent costly downtime and computer repair.

- 1.73 amps/0.5HP motor • 25 CFM/10,000FPM
- 12' UL approved power cord
- Attachments: air pin pointer & power air maximizer

 # 219192ED   Data-Vac Electric Duster **$49.95**

Whip inflation now!

Avoid the light-headed sensation you get when blowing up a large air-filled item. If you've ever inflated a guest bed, kiddie-pool, raft or other large item the old-fashioned way, MagicAir is ready to come to your respiratory rescue.

Powered by any nearby 12-volt source, this portable unit supplies plenty of air pressure for demanding inflating jobs. Indoors or out, the MagicAir is ideal for boaters, campers, or anyone who wants to give their lungs a well-deserved vacation from inflation.

 # 219205ED   MagicAir Electric Inflator/Deflator **$49.95**

Adjustable or fixed lamps illuminate & magnify 3X

Need a flexible magnifying solution at a terrific price? Our adjustable rectangular 3-diopter 7.0"x 4.5" diameter lens allows the magnifier independent movement from the light for best

217517ED
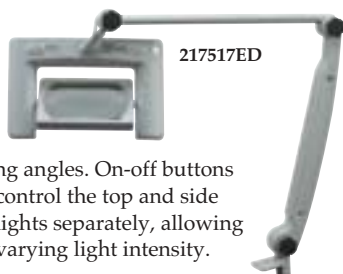
viewing angles. On-off buttons control the top and side lights separately, allowing varying light intensity.

217509ED

Save $10 by choosing the fixed-magnifier lamp with a 7.0" x 5.5" diameter 3-diopter lens for a wider viewing area. One on-off switch controls top and side bulbs in unison.

Both lamps provide superior illumination of the subject with their bright compact fluorescent bulbs located to the side and top of the lens. The enclosed spring-balance arms reduce the chance of pinched fingers from springs, providing a sleek clean look too. Arms can be adjusted and secured in any position. Arms extend to 47". UL listed.

 # 217509ED   3X Magnifying Lamp **$69.95**
 # 217517ED   Adjustable Magnifying Lamp **$79.95**

Writes anywhere, even underwater!

Apollo 11 Coin & Pen Set

Durable and lightweight, our Fisher Space Pens are on all NASA space flights. They perform in any condition - upside down, at any angle, in extreme temperatures, on carbonless paper, or even underwater! The secret is its unique design of a sealed-pressurized ink cartridge. Fisher vows an estimated 100 year shelf life.

The Apollo XI Coin and Etched Pen Set commemorates our first manned lunar landing - a Fisher Space Pen was there. The Triple Action Pen allows your choice of black or red ink, or a PDA stylus; all in one.

Triple Action Pen   *Chrome Shuttle Pen*

Use your own pen to write anywhere using Fisher Space Pen Refills. Mont Blanc and Cross pens use the specific refills listed. Roller balls by Parker, Waterman, Pelikan, Lamy, Rotring, and Sheaffer use Fisher Space Pen Refills with the included adapters.

Save up to 20%!

# 219395ED	Chrome Shuttle Pen	**Was 24.99 – Save $5.00**	**$19.99**
# 219408ED	Triple Action Pen	**Was 34.99 – Save $7.00**	**$27.99**
# 219387ED	Apollo 11 Pen & Commemorative Coin	**Save $15**	**$54.99**
# 219483ED	Mont Blanc Medium Black Refill	**Save $5.00**	**$3.99**
# 219475ED	Mont Blanc Medium Blue Refill	**Save $1.00**	**$3.99**
# 219467ED	Cross Medium Black Refill	**Save $1.00**	**$2.99**
# 219459ED	Cross Medium Blue Refill	**Save $1.00**	**$2.99**
# 219441ED	Fisher Space Pen Med. Black Refill ..	**Save $1.00**	**$3.99**
# 219416ED	Fisher Space Pen Med. Blue Refill	**Save $1.00**	**$3.99**
# 219424ED	Fisher Space Pen Med. Red Refill	**Save $1.00**	**$3.99**
# 219432ED	Fisher Space Pen Med. Green Refill	**Save $1.00**	**$3.99**

The need for speed!

The IEEE 1284 is the standard in high-speed printing. Compatible with bidirectional communication data flow resulting in speeds up to 10 times faster than conventional applications.

- Double shielded with 28 AWG stranded twisted pair inner conductors
- Molded shells, PVC plastic
- Color: gray   • Weight: 0.6 lbs.

 # 223845ED   6' DB25 Male-Centronics Parallel 36 Male............................ **$11.95**

Over 99% of our products are in stock! Place your order by 6PM EST for same business day shipment.

XM Satellite Base Receiver #226157ED

Just 1.5" thick!

3"

4.7 "

"…XM Radio is a service I can wholeheartedly recommend."
—Walter Mossberg, The Wall Street Journal

SKYFi Portable Audio Docking System #226165ED

Pocket satellite radio with 100 crystal clear channels that follow you everywhere; many commercial free!

Imagine being able to choose from 100 channels of music, broadcast news, sports and talk radio…and taking them everywhere you go. With the Delphi XM SKYFi Satellite Radio system and a subscription to XM Satellite Radio*, you'll enjoy 100 channels of entertainment, 35 of them commercial-free, anytime, anywhere.

What do I need?

With this ingenious, modular system, the "brains" are contained in a palm-sized wireless base receiver small enough to slip into your pocket (#226157ED). Just buy one base receiver and use it in any docking station, wherever the location. Plug the Home Dock into the audio input jacks of your home or office stereo. Insert the Vehicle Dock into your car's cassette player; or use the FM Modulator Kit for a wireless car installation. For even more portability, get the self-contained Boom Box/Dock, and you can take your favorite sounds to the beach, the boat, or even up in an airplane. Boom Box/Dock features two dual-cone speakers, headphone jack, integrated carrying handle, and detachable hi-gain antenna with 20' cable. Powered by AC adapter (included) or 6 D-cell batteries (not included).

Just slip the receiver into a dock…

…and 100 crisp, clear satellite stations, including up to 20 of your favorite presets, are yours at the touch of a button. The receiver's 5-line electric-orange display shows the currently playing song, artist, and more. You can even see

what's playing on other channels before you switch. Narrow your search by category for fast navigation. Or use the jog-wheel to scroll through all the channels. Includes remote for the ultimate in home or office listening.

The XM Satellite Radio Broadcast System's signal is beamed from two huge earth-station antennas to its broadcast satellites 22,000 miles above the earth. Ground antennas, or repeaters,

Dock it in your home.

Dock it in your car.

boost the signal around geographical and architectural obstacles. In fact, the quality of the XM signal is so good, Popular Science rated it "superb, with good dynamics, crisp frequency response and virtually inaudible distortion."

Non-commercial programming for XM Radio is produced at the company's 150,000 square foot broadcast centers in Washington DC, Nashville, and Manhattan The facilities include 82 studios, 20 production suites, 310 audio workstations and an unsurpassed library of digital recordings.

 # 226157ED: **Radio Base Receiver & Remote** **$129.99**
4-11/16"W x 1-1/2"D x 2-15/16"H. Requires your choice of docking stations to produce sound.

 # 226181ED: **Home Docking Kit** **$69.99**
Includes dock, AC power cord, antenna, and audio cable with twin RCA output jacks.

 # 226165ED: SKYFi Docking System **$99.99**
Includes boom box dock with two speakers, headphone jack, detachable hi-gain antenna and cable, and AC adapter.

 # 226173ED: **Vehicle Docking Kit** **$69.99**
Works with any vehicle FM stereo system with a cassette player. Includes dock, magnetic roof antenna, universal mounting bracket, and cigarette lighter power adapter.

 # 226190ED: **Vehicle FM Modulator** **$49.99**
For a more professional-looking auto installation or those without a vehicle cassette player. Replaces cassette adapter and cigarette lighter adapter for a "wireless" look.

 # 226202ED: **Antenna Extension Kit** **$39.99**
For improved reception with the Home Docking Kit

* XM Radio subscription currently priced at $9.95/mo. Sign up via the Web or by calling toll-free once you activate your new receiver. Receive complete audio instructions via the receiver. Reciever produces sound only with a docking station.

Faster, easier video editing at a fantastic price!

Create better videos faster, and have more fun doing it. The ProVideo Editing Controller system combines the most frequently used multimedia controls into a single customizable console that makes your favorite applications work together as one. Assign complicated multi-key sequences to any of the 15 keys, joystick, fader bar or jog wheel, and execute them with one touch. Switch between applications automatically as you work.

Comes with VideoWave 4.0 editing software which includes templates for all popular applications, and you can save your own templates for virtually any application. Requires Windows 98+ or Mac 8.6+. Includes USB cable. 1-year manufacturer's warranty.

 # 220329ED Pro-Video Editing Controller **$29.95**

Macros

Joystick

T-Bar

Jog Dial
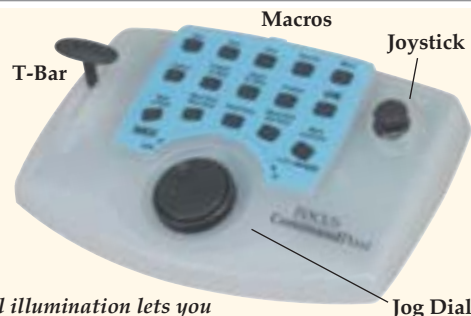
Internal illumination lets you work in a darkened room.

Illuminate the heavens...or just your presentation 20 football fields away.

Ultra-intense green beam is much brighter, goes much farther and is easier on the eyes than standard red lasers.

Even the sleepiest audience will sit up and salute when you whip out a laser pointer that's green, not red…and so bright, you could be standing nearly half a mile away. Using a wavelength closely matched to the highest sensitivity of the human eye and built with cutting-edge crystal technology, this laser projects a green beam so powerful you can see it against a clear sky at night. You won't believe how bright it is. Just think how much attention it will command from across the room! Handy pocket clip. Handsome matte black metal gift box and 2 AAA batteries included. Power output <5mW. Wavelength: 532nm. 90-day manufacturer's warranty.

223731ED   Green Laser Pointer **$199.95**

End laser ⬤ doldrums. This pointer ➡ really points... and <u>underlines</u>.

Make your point more creatively with this 3-shape laser pointer. It's a sure-cure for the "not-another-presentation" blues.

Watch your audience take notice when your standard laser dot becomes a laser arrow or even a laser underline. Just twist the head of this powerful pointer, and the beam changes shape. Use the arrow to point to fine details in a photograph. Use the underline to emphasize text.

The pointer features a solid brass housing with matte black finish and pocket clip. 2 AAA batteries (included) provide up to 3 hours of continuous use. Plastic gift case and 2-year manufacturer's warranty also included.

Choose from three shapes

223722ED   Ultimate Laser Pointer **$69.95**

Hours of different patterns, all shapes and sizes

They yawned when I pulled out my laser pointer. But when I switched it on...

The farther away from your target, the bigger the show. Great fun for parties, family gatherings, science lessons, even dull meetings.

Why settle for a humdrum laser pointer? Get this one and wake up the crowd. Yes, it does everyday "pointer-duty" with the best of them. But flip a switch, and it goes nuts—leaping, spiraling, swirling. The secret? A internal mirror mounted on a tiny spring that "sproings" with your slightest movement. Think you can hold steady enough to stop it? Go ahead and try. Range: pointer mode – 500 yards; lightshow mode – 30 yards. Wavelength: 650nm. Power: <5mW. Class IIIa. 2-year manufacturer's warranty. Includes neck strap and batteries.

223714ED   Laser Light Show - Black Case **$29.95**
223706ED   Laser Light Show - Red Case **$29.95**

Includes spare covers for the detachable speakers, plus a handy remote.

13.5"

Just 3.5" deep!

18.5"

Wall-mountable stereo boasts big sound, sleek lines, and zero footprint!

This handsome, all-in-one multimedia stereo creates a "true wall of sound" in your home or office.

Short on space, but long on taste? This elegantly designed Sanyo stereo system fulfills your audio and aesthetic dreams. You get a stereo amplifier, CD player, cassette deck, digital AM/FM tuner, alarm clock, and two high-quality speakers sculpted into an elegantly sleek work of art.

Mount the entire system on the wall for a zero-footprint solution to tight space. Leave the speakers attached, or place them up to 12 feet apart for stereo separation. The 2.5 watt-per-channel output easily fills any bedroom, living room, kitchen, bath or office cubicle with rich sound. The large backlit display and 20-key remote-control provides control of the entire system from the comfort of your bed or sofa. Preset as many as 20 FM and 10 AM stations. Wake to your favorite radio program, CD or tape. Includes base/treble control and headphone jack.

211318ED   Sanyo Slim-Profile Zero Footprint Stereo **$139.95**

Finally, a Sennheiser cell phone headset. Quality sound at last.
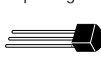
Enjoy cleaner, clearer sound with this lightweight in-the-ear headset.

The first name in headphones introduces their first in-the-ear cell phone headset with the superb sound quality you'd expect from Sennheiser. This headset uses the latest technology for clean, clear sound…then delivers it directly into your ear canal, not outside where it has to compete with background noise. The microphone boom is bendable and won't budge so it will always be in the right position. Earhook slips over either ear. Weight: .5 oz., Headphone freq. resp.: 20-22,000 Hz. Impedance 32Ω. Omnidirectional microphone freq. resp.: 40-15,000 Hz. Impedance: 1.4kΩ. Sensitivity: 12 mV/Pa. 2.5mm jack fits most mobile phones. Backed by Sennheiser's 2-year warranty.

227096ED   Sennheiser Telephone Headset **$21.95**

Call for pricing on quantities over 100 – we carry major manufacturers. **We will special order any IC – 100 Piece Minimum**

TO-3 package — 4-pin
TO-92 package — 3-pin
TO-220 package — 3 or 5-pin
DIP package — 8, 14, 16 and 18-pin

Linear Series
131 more @ www.Jameco.com/IC

Part No.	Cross Ref.	Pkg.	Description	1	10	100
120723ED	LM12CLK	TO-3/4	80W op amp.	$29.95	$27.95	$25.95
107094ED	LM34CZ	TO-92	Prec. F temp. sensor (-40˚F to +230˚F)	5.49	4.49	4.39
107107ED	LM35CZ	TO-92	Prec. C temp. sensor (-40˚C to 110˚C)	5.95	5.39	4.95
33195ED	TL072CP*	DIP-8	Low noise JFET dual op amp.	.39	.35	.29
33216ED	TL074CN*	DIP-14	Low noise JFET quad op amp.	.47	.39	.35
33267ED	TL084CN*	DIP-14	JFET-iput quad op amp.	.49	.44	.39
23392ED	LM301N*	DIP-14	Improved op amp.	.39	.35	.29
23464ED	LM308N*	DIP-8	Precision op amp.	4.49	3.99	3.49
23528ED	LM311N*	DIP-8	Voltage comparator	.35	.25	.19
23608ED	LM318N	DIP-8	Precision hi-speed op amp.	.59	.52	.45
23632ED	LM319N	DIP-14	Hi-speed dual comparator	.45	.40	.31
23683ED	LM324N**	DIP-14	Low power quad op amp. (ULN4336)	.29	.25	.22
23721ED	LM331N	DIP-8	Prec. volt to freq. converter (150ppm/°C)	2.55	1.99	1.45
23851ED	LM339N**	DIP-14	Quad comparator	.29	.25	.22
23966ED	LM358N*	DIP-8	Low power dual op amp.	.18	.13	.11
24088ED	LM383T	TO-220/5	7-watt audio high power amp.	5.95	5.39	4.95
24281ED	LM393N*	DIP-8	Dual comparator	.35	.29	.25
23000ED	LF398N	DIP-8	Sample and hold circuit	1.59	1.45	1.15
23026ED	LF412CN*	DIP-8	Low offset drift JFET input dual op amp.	1.35	1.19	.99
27422ED	LM555CN**	DIP-8	Timer (MC1455P/NE555V)	.29	.25	.19
126797ED	LMC555CN*	DIP-8	CMOS 555 timer	.54	.49	.44
24328ED	LM556N*	DIP-14	Dual 555 timer (MC3456P)	.49	.45	.39
24352ED	LM565N	DIP-14	Phased locked loop	1.49	1.29	1.19
24395ED	LM567V	DIP-8	Tone decoder	.49	.40	.37
27490ED	NE571N	DIP-16	Compander, subscriber	3.29	2.99	2.69
24539ED	LM741CN**	DIP-8	OP. amp. (ULN2151)	.29	.25	.19
24563ED	LM747CN	DIP-14	Dual 741 op amp.	3.65	2.78	2.15
23131ED	LM1458N*	DIP-8	Dual op amp. (RC4558)	.29	.26	.22
23157ED	LM1488N*	DIP-14	Quad line driver RS232 (75188)	.29	.25	.22
23181ED	LM1489N*	DIP-14	Quad line rec. RS232 (75189)	.29	.20	.18
23270ED	LM1875T	TO-220/5	20-watt power audio amp.	1.95	1.55	1.25
107140ED	LM1881N	DIP-8	Video synchronous separator	2.49	1.99	1.49
34278ED	ULN2003A*	DIP-16	Hi-volt/curr. darl. transistor array	.39	.35	.29
156566ED	LM2574N-5	DIP-8	Step-down 5-voltage regulator	2.49	2.19	1.95
39589ED	26LS31	DIP-16	Quad diff line driver	.79	.69	.62
39600ED	26LS32	DIP-16	Quad diff line receiver	.59	.50	.39
34315ED	ULN2803A*	DIP-18	Hi-volt. hi-curr. darl. transis. array	.69	.59	.49
23296ED	LM2901N	DIP-14	Quad comp.	.29	.23	.18
23350ED	LM2917N-8	DIP-8	Frequency to volt converter	2.45	1.75	1.25
107182ED	LM2940CT-5	TO-220/3	5V low dropout reg. (max. 45Vin)	1.29	1.19	1.09
12183ED	CA3130E	DIP-8	CMOS op. amp.	.75	.72	.69
12204ED	CA3140E	DIP-8	Bi-MOS op amp.	.79	.71	.63
12239ED	CA3161E	DIP-16	BCD to 7-segment decoder driver	2.19	1.95	1.75
24168ED	CA3401N	DIP-14	Quad amp (LM3900N) (221-235)	.79	.69	.62
24230ED	LM3914N	DIP-18	Bar-graph display driver	2.25	2.02	1.82
24256ED	LM3915N	DIP-18	3 dB steps bar-graph disp. driver	2.49	1.99	1.55
27385ED	NE5532*	DIP-8	Dual low noise op amp	.49	.43	.39
51879ED	8038CCPD	DIP-14	Precision wave form generator	3.19	2.39	2.19
50964ED	75176	DIP-8	Differential bus transceiver	.79	.67	.50
51131ED	75492	DIP-14	Hex digit driver (492)	6.95	6.25	5.95

*10 pieces in Linear kit, below **20 pieces in Linear kit, below

Linear Series IC Cabinet Kit
Get a total of 480 pieces comprised of 40 different ICs and save big! Includes 20-drawer component cabinet with drawers dividers and adhesive labels for labeling.

SAVE $60

Part No	Description	1	10
84988ED	480 pcs. Linear IC cabinet kit (some of 40 types noted by */**)	$189.95	$169.95

Analog Devices
More @ www.Jameco.com/IC

Part No.	Product No.	Pins	Description	1	10	50
115158ED	AD558JN	16	Microprocessor compat. 8-bit DAC	$17.99	$12.75	$11.49
115174ED	AD620AN	8	Low cost instrument amplifier	17.95	15.95	14.35
115182ED	AD633JN	8	Low cost analog multiplier	7.95	7.19	6.45

Maxim-Type Interface Series
More @ www.Jameco.com/IC

Part No.	Cross Ref.	Pins	Description	1	10	100
142535ED	MAX202CPE	16	+5V RS232 trans. requires 0.1µF caps	$2.49	$2.25	$2.05
24811ED	MAX232CPE SP232ACP	16	+5V powered, dual RS232 transmitter/ receiver (0°C to +70°C)	2.19	1.75	1.45
106147ED	MAX232CWE◆	16	+5V powered, dual RS232 (SOIC) trans./rcvr.	1.95	1.75	1.59
106155ED	MAX232EPE	16	+5V powered, dual RS232 transmitter/receiver (-40°C to +85°C)	2.49	2.25	2.05
106163ED	MAX233CPP	20	+5V powered, multichannel RS232 drivers/receivers (no ext. components)	5.75	5.18	4.66
106171ED	MAX235CPG	24	+5V powered, five RS232 transmitter/ receiver (no ext. components)	9.95	8.95	7.85

◆ Surface mount

7400 Series
59 more @ www.Jameco.com/IC

Part No.	Cross Ref.	Pins	Description	1	10	100
48979ED	7400**	14	Quad 2-input NAND gate	$.65	$.55	$.45
49015ED	7402*	14	Quad 2-input NOR gate	.59	.49	.45
49120ED	7407**	14	Hex buffer/driver (O.C.)	.35	.32	.28
49146ED	7408*	14	Quad 2-input AND gate	.79	.55	.45
49728ED	7417*	14	Hex buffer/driver (O.C. hi-voltage)	.79	.67	.50
50593ED	7476	16	Dual JK flip-flop with preset and clear	.89	.73	.59
50631ED	7483	16	4-bit binary full adder	.89	.79	.69
50745ED	7493	14	4-bit binary counter	1.49	1.34	1.19
49883ED	74189	16	64-bit RAM tri-state (DM8599N)	3.99	3.39	2.55
49912ED	74192	16	Decade up/down counter with clear	3.69	3.39	3.19
88225ED	SDLD001A	—	Texas Instruments TTL Data Book	34.95	31.49	29.95

*10 pieces included in 7400 kit below   **20 pieces included in 7400 kit below

7400 Series IC Cabinet Kit
Get a total of 350 pieces comprised of 30 different ICs and save big! Includes 20-drawer component cabinet with drawers dividers and adhesive labels for labeling.

SAVE $71

Part No.	Description	1	10
84953ED	350 pcs. 7400 series IC cabinet kit (some of 30 types noted by */**)	$139.95	$125.95

74C Series
More @ www.Jameco.com/IC

Part No.	Cross Ref.	Pins	Description	1	10	100
44222ED	74C00	14	Quad 2-input NAND gate	$.79	$.59	$.41
44231ED	74C04	14	Hex inverter (CD4069)	.79	.59	.41
44564ED	74C922	18	16-key keyboard encoder (INS8245N)	6.29	5.05	4.26
44572ED	74C923	20	20-key keyboard encoder (INS8246N)	6.29	5.05	4.25

Voltage Regulators
More @ www.Jameco.com/IC

Part No.	Cross Ref.	Pkg.	Description	1	10	100
23579ED	LM317T**	TO-220/3	1.5A adj. pos. reg. (1.2V-37V)	$.49	$.44	$.39
23667ED	LM323K	TO-3/2	5V 3A positive reg.	3.19	2.78	2.12
192284ED	LM338T	TO-220/3	5A adjustable regulator	2.59	1.95	1.45
24467ED	LM723CN*	DIP-14	Voltage regulator (2V-37V)	.29	.26	.23
51182ED	78L05**	TO-92	5V 100mA pos. voltage regulator	.29	.26	.23
51203ED	78L12*	TO-92	12V 100mA pos. voltage regulator	.25	.21	.16
192233ED	78M05	TO-220/3	5V 500mA pos. voltage regulator	.35	.30	.22
192241ED	78M12	TO-220/3	12V 500mA pos. voltage regulator	.35	.32	.28
51262ED	7805T**	TO-220/3	5V 1A pos. voltage reg. (LM340T-5)	.35	.32	.28
51431ED	79L12	TO-92	12V 100mA neg. voltage regulator	.28	.25	.23
51457ED	7905T*	TO-220/3	5V 1A neg. voltage regulator	.39	.35	.29
51481ED	7912T*	TO-220/3	12V 1A neg. voltage regulator	.39	.35	.29

*10 pieces in Linear kit, left   **20 pieces in Linear kit, left

Call for pricing on quantities over 100 – we carry major manufacturers.   **We will special order any IC – 100 Piece Minimum**

74LS Series
55 more @ www.Jameco.com/IC

Part No.	Cross Ref.	Pins	Description	1	10	100
46252ED	74LS00**	14	Quad 2-input NAND gate .... $.29		$.27	$.24
46287ED	74LS02**	14	Quad 2-input NOR gate .... .29		.25	.21
46316ED	74LS04**	14	Hex inverter .... .29		.26	.23
46341ED	74LS05*	14	Hex inverter (O.C.) .... .34		.26	.18
46367ED	74LS07	14	Hex buffer/driver (O.C. hi-voltage) .... .84		.79	.74
46375ED	74LS08**	14	Quad 2-input AND gate .... .36		.31	.29
46404ED	74LS10*	14	Triple 3-input NAND gate .... .21		.18	.15
46439ED	74LS11*	14	Triple 3-input AND gate .... .31		.28	.25
46640ED	74LS14*	14	Hex inverter Schmitt trigger .... .29		.25	.18
47095ED	74LS20*	14	Dual 4-input NAND gate .... .23		.18	.14
47458ED	74LS30*	14	8-input NAND gate .... .29		.25	.18
47466ED	74LS32**	14	Quad 2-input OR gate .... .29		.26	.23
47693ED	74LS38	14	Quad 2-input NAND gate buffer (O.C.) .. .29		.25	.18
47790ED	74LS47*	16	BCD to 7-seg. decoder/driver (O.C.) ...... .72		.52	.45
47992ED	74LS73*	14	Dual JK flip-flop with clear .... .36		.33	.27
48004ED	74LS74**	14	Dual D flip-flop .... .29		.25	.22
48021ED	74LS75*	16	4-bit bi-stable latch .... .55		.43	.35
48071ED	74LS85*	16	4-bit magnitude comparator .... .39		.29	.25
48098ED	74LS86*	14	Quad EXCLUSIVE-OR gate .... .35		.30	.22
48119ED	74LS90*	14	Decade counter .... .49		.45	.39
48151ED	74LS93*	14	4-bit binary counter .... .89		.79	.70
46480ED	74LS123*	16	Dual mono. multivibrator with clear ...... .33		.28	.21
46501ED	74LS125*	14	Quad bus buffer neg. enable tri-state ... .39		.31	.23
46607ED	74LS138**	16	3 to 8 decoder/demultiplexer .... .38		.35	.29
46623ED	74LS139*	16	2 to 4 decoder/demultiplexer .... .36		.31	.23
46703ED	74LS151*	16	8-bit input multiplexer .... .39		.35	.31
46738ED	74LS154	24	4 to 16 line decoder/demultiplexer 2.49		2.25	2.05
46754ED	74LS155*	16	Dual 2/4 demultiplexer .... .39		.33	.25
46771ED	74LS157*	16	Quad 2/1 data selector .... .29		.25	.18
46931ED	74LS174*	16	Hex D flp-flop with clear .... .35		.28	.19
46957ED	74LS175*	16	Quad D flip-flop with clear .... .35		.31	.27
47010ED	74LS192	16	Decade up/down counter with clear ... 3.95		3.59	3.25
47036ED	74LS193*	16	Binary up/down counter with clear .... .59		.49	.45
47141ED	74LS240*	20	Octal invert. line driver tri-state .... .44		.37	.28
47167ED	74LS241	20	Octal bus/line driver tri-state .... .39		.33	.24
47183ED	74LS244*	20	Octal driver tri-state .... .44		.37	.28
47212ED	74LS245*	20	Octal bus transceiver tri-state .... .45		.39	.35
47386ED	74LS273*	20	Octal D-tyoe flip-flop with clear .... .39		.35	.29
47600ED	74LS373*	20	Octal D flip-flop tri-state .... .45		.39	.35
47634ED	74LS374*	20	Octal D F/F edge-trig tri-state .... .45		.39	.34
47669ED	74LS377	20	Octal D register common enable .... .53		.45	.34
47722ED	74LS390	16	Dual 4-bit decade counter .... .55		.47	.35
47861ED	74LS540	20	Octal invert. buffer/line driver tri-state .. .69		.59	.44
47870ED	74LS541	20	Octal buffer/line driver tri-state .... .69		.59	.49
64418ED	74LS573	20	Octal D-type F/F latch tri-state 1.65		1.45	.98
47984ED	74LS688	20	8-bit magnitude comparator 1.09		.89	.69

*10 pieces in 74LS kit below   **20 pieces in 74LS kit below

74LS Series IC Cabinet Kit

Get a total of 420 pieces comprised of 35 different ICs and save big! Includes 20-drawer component cabinet with drawers dividers and adhesive labels for labeling.

SAVE $45

See page 41 for kit details

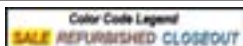| Part No.	Description	1	10
84961ED	420 pc. 74LS series IC cabinet kit (some of 35 types noted by */**) $119.99		$107.99

IC Test Clip Series

- For temporary connections to DIP package components
- Heavy-duty spring loaded hinge provides positive contact
- 20 AWG insulated gold contacts
- Color: white

22103ED

Part No.	Cross Ref.	Description	1	10	25
22103ED	JTC16	16-pin (for 8, 14 and 16-pin ICs) $6.95	$6.25	$5.59
22120ED	JTC20	20-pin (for 18 and 20-pin ICs) 8.95	6.50	5.35
22162ED	JTC28	28-pin 10.95	9.95	8.95

74HC Series
41 more @ www.Jameco.com/IC

Part No.	Cross Ref.	Pins	Description	1	10	100
45161ED	74HC00	14	Quad 2-input NAND gate (6231581) ..... $.29		$.19	$.14
45188ED	74HC02	14	Quad 2-input NOR gate .... .29		.15	.10
45794ED	74HC32	14	Quad 2-input OR gate .... .13		.11	.08
46130ED	74HC74	14	Dual D flip-flop .... .35		.32	.29
45541ED	74HC192	16	Decade up/down counter with clear 1.59		1.45	1.29
45612ED	74HC240	20	Octal inverting line driver tri-state .... .49		.39	.34
45655ED	74HC244	20	Octal driver tri-state .... .45		.39	.29
45831ED	74HC373	20	Octal D-type flip-flop tri-state .... .45		.39	.35
46050ED	74HC541	20	Octal buffer/line driver tri-state .... .69		.55	.35
46084ED	74HC574	20	Octal D-type flip-flop tri-state .... .59		.50	.38
46105ED	74HC595	16	8-bit serial-to-parallel shift reg. tri-state .62		.44	.39

74HCT Series
More @ www.Jameco.com/IC

✱ Prepackaged: order in increments of 10 or 100

Part No.	Cross Ref.	Pins	Description	1	10	100
44871ED	74HCT00	14	Quad 2-input NAND gate (Y560820T) .... $.29		$.25	$.19
44898ED	74HCT04	14	Hex inverter .... .29		.25	.19
44901ED	74HCT08	14	Quad 2-input AND gate .... .29		.24	.18
44935ED	74HCT14	14	Hex inverter Schmitt trigger .... .39		.33	.25
45057ED	74HCT32	14	Quad 2-input OR gate .... .34		.29	.22
45137ED	74HCT74	14	Dual D flip-flop .... ✱		.12	.10
44927ED	74HCT138	16	3-to-8 decoder/demultiplexer .... .29		.25	.19
63773ED	74HCT139	16	2-to-4 decoder/demultiplexer .... .29		.25	.22
88057ED	74HCT154	24	4-to-16 decoder/demultiplexer .... .99		.84	.63
45014ED	74HCT240	20	Octal inverting line driver tri-state .... .49		.42	.31
45022ED	74HCT244	20	Octal driver tri-state .... .39		.33	.24
45031ED	74HCT245	20	Octal transceiver tri-state .... .39		.33	.25
45049ED	74HCT273	20	Octal D-type flip-flop with clear .... .39		.35	.31
45065ED	74HCT373	20	Octal D-type flip-flop tri-state .... .49		.44	.35
45073ED	74HCT374	20	Octal D-type flip-flop edge-trig. TS .... .49		.39	.29
99303ED	74HCT541	20	Octal buffer/line driver tri-state .... .69		.59	.39
45090ED	74HCT573	20	Octal D-type latched flip-flop tri-state .... .69		.59	.42
45102ED	74HCT574	20	Octal D-type flip-flop edge-trigger tri-state .69		.59	.44
45129ED	74HCT688	20	8-bit magnitude comparator .... .69		.59	.49

4000 Series
35 more @ www.Jameco.com/IC

Part No.	Cross Ref.	Pins	Description	1	10	100
12562ED	CD4001**	14	Quad 2-input NOR gate .... $.29		$.24	$.21
12634ED	CD4011**	14	Quad 2-input NAND gate .... .29		.24	.21
12677ED	CD4013**	14	Dual D flip-flop with set/reset .... .39		.34	.25
12706ED	CD4015*	16	Dual 4-stage static shift register .... .39		.35	.31
12722ED	CD4016*	14	Quad bilateral switch .... .29		.25	.22
12749ED	CD4017*	16	Decade counter/divider .... .39		.35	.31
12802ED	CD4020*	16	14-stage binary/ripple counter .... .55		.49	.44
12845ED	CD4023*	14	Triple 3-input NAND gate .... .29		.25	.19
12853ED	CD4024*	14	7-stage binary counter .... .39		.33	.25
12950ED	CD4040*	16	12-stage binary/ripple counter .... .39		.35	.29
13055ED	CD4049**	16	HEx/buffer/converter (inverting) .... .29		.24	.21
13071ED	CD4050*	16	Hex/buffer/converter (N-inverting) .... .29		.26	.23
13098ED	CD4051*	16	Single 8-channel multi./demultiplexer .... .45		.39	.35
13231ED	CD4069*	14	Hex inverter (74C04) .... .29		.26	.23
13258ED	CD4070*	14	Quad EXCLUSIVE-OR gate (74C86) .... .29		.26	.23
13354ED	CD4081*	14	Quad 2-input AND gate .... .25		.19	.17
13493ED	CD4511*	16	BCD to 7-seg. latch/decoder/driver .... .69		.59	.49
13581ED	CD4520	16	Dual binary up counter .... .49		.44	.39
13653ED	CD4538*	16	Dual precision monostable multivibrator .. .59		.53	.48
13709ED	CD4553	16	3-digit BCD counter 2.95		2.75	2.49

*10 pieces in CD4000 kit below   **20 pieces in CD4000 kit below

CD4000 Series IC Cabinet Kit

Get a total of 300 pieces comprised of 25 different ICs and save big! Includes 20-drawer component cabinet with drawers dividers and adhesive labels for labeling.

SAVE $36

See page 41 for kit details

Part No.	Description	1	10
84970ED	300 pc. CD4000 series IC cabinet kit (some of 25 types noted by */**) ... $79.95		$71.95

Call for pricing on quantities over 100 – we carry major manufacturers.   **We will special order any IC – 100 Piece Minimum**

EPROM
52 more @ www.Jameco.com/IC

Part No.	Cross Ref.	Pins	Description			1	10	100
40002ED	2716	24	2k x 8	16kB	450ns (25V)	$3.99	$3.59	$3.19
40011ED	2716-1	24	2k x 8	16kB	350ns (25V)	6.49	5.89	5.39
39706ED	27C16	24	2k x 8	16kB	450ns (25V) CMOS	7.25	6.55	5.99
40096ED	2732	24	4k x 8	32kB	450ns (25V)	6.49	5.49	4.10
40109ED	2732A-20	24	4k x 8	32kB	200ns (21V)	6.49	5.99	5.49
40192ED	2764-20	28	8k x 8	64kB	200ns (21V)	5.25	4.49	3.35
40248ED	2764A-25	28	8k x 8	64kB	250ns (12.5V)	3.49	3.15	2.85
105304ED	27C64-12	28	8k x 8	64kB	120ns (12.5V) CMOS ..	6.49	5.99	5.49
39829ED	27C64-15	28	8k x 8	64kB	150ns (12.5V) CMOS ..	5.49	4.99	4.49
74608ED	27C64-20	28	8k x 8	64kB	200ns (12.5V) CMOS ..	4.29	4.24	3.79
39933ED	27128-25	28	16k x 8	128kB	250ns (21V)	5.95	5.09	3.85
87935ED	27C128-12	28	16k x 8	128kB	120ns (12.5V) CMOS ..	4.49	3.99	3.59
39677ED	27C128-15	28	16k x 8	128kB	150ns (12.5V) CMOS ..	4.29	3.85	3.45
40037ED	27256-15	28	32k x 8	256kB	150ns (12.5V)	3.25	3.09	2.75
140476ED	27C256-70	28	32k x 8	256kB	70ns (12.5V) CMOS	3.59	3.39	3.09
112740ED	27C256-10	28	32k x 8	256kB	100ns (12.5V) CMOS ..	3.35	3.15	2.85
65904ED	27C256-12	28	32k x 8	256kB	120ns (12.5V) CMOS ..	3.25	3.15	2.79
39714ED	27C256-15	28	32k x 8	256kB	150ns (12.5V) CMOS ..	3.25	3.09	2.75
40168ED	27512-25	28	64k x 8	512kB	250ns (12.5V)	2.55	2.35	2.14
175206ED	27C512-90	28	64k x 8	512kB	90ns (12.5V) CMOS	3.45	3.25	2.95
118148ED	27C1024-15	40	64k x 16	1024kB	150ns (12.5V) CMOS ..	5.95	5.55	4.99
39669ED	27C010-20	32	128k x 8	1024kB	200ns (12.5V) CMOS ..	3.89	3.68	3.38
78852ED	27C020-12	32	256k x 8	2048kB	120ns (12.5V) CMOS ..	5.63	5.22	4.71
127933ED	27C4096-12	40	256k x 16	4096kB	120ns (12.5V) CMOS ..	9.22	8.60	7.85
111780ED	27C040-10	32	512k x 8	4096kB	100ns (12.5V) CMOS ..	6.92	6.41	5.90
102293ED	27C040-12	32	512k x 8	4096kB	120ns (12.5V) CMOS ..	6.92	6.41	5.90
156275ED	27C080-10	32	1M x 8	8192kB	100ns (12.5V) CMOS ..	12.91	11.99	10.96
140003ED	27C080-12	32	1M x 8	8192kB	120ns (12.5V) CMOS ..	12.91	11.99	10.96

See EPROM programmers on page 49

EPROM Accessories
More @ www.Jameco.com/IC

Part No.	Cross Ref.	Description	1	10
66042ED	DE1	UVP portable EPROM eraser, pg 49	$64.95	$58.95
15712ED	DE4	8-chip UV-EPROM eraser, pg 49	109.95	104.95

EEPROM
15 more @ www.Jameco.com/IC

Part No.	Cross Ref.	Pins	Description	1	10	100
108847ED	24C04P	8	512 x 8 4096-bit serial (CMOS)	$.89	$.79	$.69
74691ED	28C16A-25	24	2k x 8 16k 250ns (5V) CMOS	3.99	3.69	3.39
74827ED	28C64A-25	28	8k x 8 64k 250ns (5V) CMOS	4.49	4.05	3.65
74878ED	28C256-25	28	32k x 8 256k 250ns CMOS	8.75	6.85	6.05

PROM
13 more @ www.Jameco.com/IC

Part No.	Cross Ref.	Pins	Description	1	10	100
27781ED	N82S129	16	256 x 4 1024-bit PROM tri-state (27S21)	$7.95	$6.95	$6.25
48717ED	74S288	16	32 x 8 Tri-state (27S19/TBP18S030N) ..	2.99	2.55	1.95

GAL
8 more @ www.Jameco.com/IC

Part No.	Cross Ref.	Pins	Description	1	10	100
39167ED	22V10-25	24	25ns 132 x 44 AND array Lattice	$3.99	$3.49	$3.09

Static RAM
22 more @ www.Jameco.com/IC

Part No.	Cross Ref.	Pins	Description	1	10	100
38957ED	2114N	18	1k x 4 450ns (9114BPC)	$2.25	$1.99	$1.79
38973ED	2114N-2	18	1k x 4 200ns (9114EPC) (U214D20)	2.49	2.25	2.05
38981ED	2114N-2L	18	1k x 4 200ns low power	2.49	2.25	2.05
42198ED ✄	5101	22	256 x 4 450ns (CMOS)	7.99	7.19	6.49
42930ED ✄	6264P-12	28	8k x 8 120ns (64kB) CMOS	2.65	2.39	2.15
85121ED	6264LP-70	28	8k x 8 70ns (64kB) LP CMOS	3.39	2.99	2.69
42884ED ✄	6264LP-10	28	8k x 8 100ns (64kB) LP CMOS	2.75	2.49	2.25
82472ED	62256LP-70	28	32k x 8 70ns low power CMOS	5.49	4.99	4.49
42833ED ✄	62256LP-10	28	32k x 8 100ns low power CMOS	4.35	3.95	3.55
42850ED ✄	62256LP-12	28	32k x 8 120ns low power CMOS	3.85	3.49	3.15
75037ED	ATT7C199P-15	28	32k x 8 15ns high speed CMOS (.3"W) ..	3.39	2.99	2.69
131810ED	628128LP-70	32	128k x 8 70ns low power CMOS	8.95	7.79	6.99
157358ED	628512LP-70	32	512k x 8 70ns low power CMOS	19.99	17.99	16.19

✄ Pull

Flash Memory
More @ www.Jameco.com/IC

Part No.	Cross Ref.	Pins	Description	1	10	50
74835ED	28F020-15	32	256k x 8 150ns (12V) CMOS	$7.95	$7.15	$6.45

ATMEL AT89C Series
More @ www.Jameco.com/IC

Part No.	Product No.	Pins	Description	1	10	100
168874ED	AT89C2051-24PC	20	8-bit MCU, 24MHz 2kb flash memory ...	$3.59	$2.39	$2.15
168891ED	AT89C51-20PC	40	8-bit MCU, 20MHz 4kb flash memory	4.25	3.84	3.49
168938ED	AT89C52-24JC	44	8-bit MCU, 24MHz 8kb flash mem. PLCC	4.35	2.83	2.53

CPUs/MPUs
5 more @ www.Jameco.com/IC

Part No.	Description	MHz	Socket	1	10	25
118421ED	486 speed doubler (Intel), 80486DX2	66	168/PGA	$19.95	$17.95	$16.15
130833ED	Pentium® processor	133	296/PGA	29.95	26.95	24.25
130841ED	Pentium® processor	166	296/PGA	54.99	46.75	35.09
189296ED ✄	Pentium® processor	200	296/PGA	69.95	52.49	36.75
140054ED ✄	Pentium MMX® processor	200	376/PGA	49.95	42.49	31.85
150501ED	Pentium MMX® processor	233	376/PGA	69.95	62.95	54.95
190060ED	Pentium® II processor with heat sink	233	Slot 1	89.95	79.95	72.95
151651ED	Pentium® II processor	300	Slot 1	109.99	99.99	89.99
183100ED	Pentium® II processor	400	Slot 1	124.99	109.99	99.99
192751ED	Athlon, A0750MPR24B	750	Slot A	64.95	64.95	64.95
183118ED	Pentium® III processor	600	Slot 1	159.99	153.79	147.49

✄ Pull

Dynamic Video RAM
8 more @ www.Jameco.com/IC

Part No.	Cross Ref.	Pins	Description	1	10	100
41339ED	4116-15	16	16k x 1 150ns (MM5290J-1R)	$.99	$.89	$.80
128688ED	HM514260	SOJ	256k x 16 70ns	3.39	2.99	2.69

5000 Series
5 more @ www.Jameco.com/IC

Part No.	Cross Ref.	Pins	Description	1	10	50
32803ED	TCM5089N	16	Integrated tone dialer chip	$4.95	$4.49	$4.05

6500 Series
More @ www.Jameco.com/IC

Part No.	Cross Ref.	Pins	Description	1	10	100
43166ED	65C02	40	MPU with internal clock (CMOS)	$6.95	$5.25	$3.65
43254ED	6522	40	VIA (versatile interface adapter) 1MHz	2.39	2.15	1.94

✄ Pull

6800 Series
15 more @ www.Jameco.com/IC

Part No.	Cross Ref.	Pins	Description	1	10	100
43481ED ✄	6800	40	8-bit MCU	$6.95	$5.25	$3.65
43502ED	6802	40	8-bit MPU with clock and RAM (1MHz) ...	8.69	7.82	6.99
132484ED	MC68HC705C8S	40	8-bit HCMOS MCU, 8k bytes, EPROM ..	38.95	34.95	31.55

✄ Pull

8000 Series
51 more @ www.Jameco.com/IC

Part No.	Cross Ref.	Pins	Description	1	10	100
51844ED ✄	8031	40	CPU with 128 x 8 RAM and I/O	$3.29	$2.99	$2.69
102197ED	8032	40	8-bit MCU 256 x 8 RAM	3.95	3.59	3.25
51991ED ✄	8051AP**	40	MCU w/128x8 RAM (book P/N 161402, pg 58)	5.49	4.99	4.49
125647ED	80C52BASIC	40	CPU 8-bit CMOS with basic interpreter ...	19.95	17.95	16.89
51705ED	80C85	40	CPU 8-bit N-channel (3MHz)(CMOS)	6.95	5.95	4.45
52142ED ✄	8088	40	CPU 16-bit (8-bit data bus) 5MHz	2.49	2.25	1.99
52708ED ✄	8254	24	Prog. interval timer (UPD71054)	4.49	3.99	3.59
52724ED ✄	8255	40	Prog. peripheral I/O (PPI) 71055 (2MHz)	4.49	3.99	3.49
52732ED ✄	8255A-5	40	Prog. peripheral I/O (PPI) 5MHz	4.89	4.39	2.89
52425ED	82C55A-5	40	Prog. peripheral I/O (PPI) CMOS (5MHz)	3.99	3.49	3.19
52759ED ✄	8256	40	Multif. universal asynch. rec./trans.	19.99	17.99	16.19
52871ED ✄	8284A	18	Clock gen. and driver (UPD71084)	4.49	3.99	3.59
52978ED	87C51	40	CPU w/ 4kx8 EPROM & 128x8 RAM(3.5-12MHz)	21.99	18.69	13.99

**Tie pin 31 low to bypass the internal ROM   ✄ Pull

9000 Series
More @ www.Jameco.com/IC

Part No.	Cross Ref.	Pins	Description	1	10	100
53663ED	9368	16	FND70 driver/latch	$4.49	$3.95	$3.55
10567ED ✄	AM9513APC	40	System timing controller	39.95	33.99	25.49

✄ Pull

Call for pricing on quantities over 100 – we carry major manufacturers.   We will special order any IC – 100 Piece Minimum

MOTOROLA Type Series
More @ www.Jameco.com/IC

Part No.	Cross Ref.	Pins	Description	1	10	100
24942ED	MC1350P	8	Video IF amp (12V operation)	$1.29	$1.19	$1.09
25216ED	MC3479P	16	Biphase stepper motor driver	5.75	5.18	4.65
25232ED	MC3486P	16	Quad EIA-422/423 line rec. w/ 3-state outputs	.59	.49	.45
25259ED	MC3487P	16	Quad EIA-422 line driver w/ 3-state outputs	.69	.59	.45
25275ED	MC4044P	14	Frequency phase detector (11C44)	9.99	7.49	5.25
25064ED	MC14490P	16	Hex contact bounce eliminator	6.95	6.25	5.59
118586ED ⌘	MC145151P	28	Parallel input PLL freq. synthesizer	5.95	5.39	4.85
25101ED ⌘	MC146818	24	Real time clock plus RAM	4.95	3.75	3.19

⌘ Pull

DALLAS SEMICONDUCTOR Semiconductor
5 more @ www.Jameco.com/IC

Part No.	Product No.	Pins	Description	1	10	100
133410ED	DS1216C	28	Smartwatch/RAM 64K/256k	$29.49	$27.39	$16.45
114278ED	DS1225AB-150	28	64k nonvol. SRAM 5%pwr, 4.62V WP	17.29	14.49	9.89
177113ED	DS1230Y-100	28	256k nonvol. SRAM 10%pwr, 4.37V WP	21.95	18.69	13.99
176778ED	DS1302	8	Trickle charge time keeping IC	2.49	2.25	2.05
114374ED ⌘	DS1387	24	RAMified real time clock 4kx8	8.95	8.15	7.25
114382ED	DS1620	8	Digital thermometer and thermostat	5.49	4.95	3.89

⌘ Pull

Microchip CMOS PIC Microcontrollers
30 more @ www.Jameco.com/IC

Part No.	Product No.	Pins	Conf.	Speed (MHz)	EPROM Bits	RAM Bytes	I/O Lines	1	10	100
145040ED	PIC12C508-04/P	8	OTP	4	512 x 12	25	5	$1.75	$1.49	$1.25
134172ED	PIC16C56-RC/P	18	OTP	20	1k x 12	25	12	3.75	3.49	3.25
193447ED	PIC16F628-20/P	18	Flash	20	2k x 14	224	16	3.49	3.15	2.89
145111ED	PIC16F84-04/P	18	Flash	4	1k x 14	68	13	5.95	5.35	4.75
145120ED	PIC16F84-10/P	18	Flash	10	1k x 14	68	13	6.85	6.51	6.19
193332ED	PIC16F84A-20/P	18	Flash	20	1k x 14	68	13	5.95	5.35	5.09
193367ED	PIC16F876-20/SP	28	Flash	20	256 x 8	368	22	8.39	7.59	7.15
176882ED	PIC16F877-20/P	40	Flash	20	256 x 8	368	33	9.49	8.49	7.49

HOLTEK Remote Control Decoders

Part No.	Product No.	Pins	Description	1	10	100
126607ED	HT648L	24	Decoder 10-bit address / 8-bit latch data	$3.29	$2.99	$2.69

UARTs
More @ www.Jameco.com/IC

Part No.	Cross Ref.	Pins	Description	1	10	100
27596ED ⌘	NS16550AN	40	Univ. asynch. rcvr./trans. w/ FIFO (PC16550DN)	$5.95	$5.09	$3.79

⌘ Pull

A/D Converters
More @ www.Jameco.com/IC

Part No.	Cross Ref.	Pins	Description	1	10	100
10153ED	ADC0804LCN	20	8-bit A/D converter (1 LSB)	$2.69	$2.39	$2.09

Harris/Intersil Type Series
More @ www.Jameco.com/IC

Part No.	Cross Ref.	Pins	Description	1	10	100
43756ED	7107CPL	40	3 1/2-digit LED single-chip A/D converter	$3.49	$2.79	$2.59
51140ED	7555IPA	8	CMOS timer (LM555CN)	.59	.49	.45
51879ED	8038CCPD	14	Waveform generator/volt control OSC	3.19	2.39	2.19

Microcontrollers

80C52-BASIC Microcontroller

The 80C52-BASIC chip is a custom-masked 80C52 microcontroller with a full-featured 8k-byte ROM-resident BASIC-52 interpreter.

Hardware: • On-chip oscillator and clock circuit
• Operates DC to 12MHz • 256 x 8-bit RAM
Software: • Full BASIC interpreter in ROM on a single chip
• "Stand-alone" software development
• Interrupts can be handled by BASIC or Assembly Language

Part No.	Product No.	Description	1	10	100
125647ED	80C52BASIC	CPU 8-bit CMOS w/ BASIC interpreter	$19.95	$17.95	$16.89

ISD Voice Chips

Single-Chip Voice Record/Playback Devices
10 to 120 Second Durations (28-pin DIP)

- Easy-to-use single-chip voice recording and playback
- Manual switch or microprocessor controllable
- Directly cascadable for longer durations
- Fully addressable to handle multiple messages • On-chip clock source
- Zero-power message storage – eliminates battery backup circuits
- Single voltage operation: +5V (4.5V to 5.5V operating range)
- Automatic power-down (push-button mode) • 100k record cycles (typical)
- Playback can be edge or level-activated • 1 µA standby current (typical)
- 100-year message retention (typical) • On-chip automatic gain control (AGC)

107334ED

Part No.	Product No.	Description	1	10	50
141671ED	ISD1110P	Voice record/playback (10 sec.)	$4.29	$3.99	$3.79
107334ED	ISD1420P	Voice record/playback (20 sec.)	5.39	5.09	4.89
120643ED	ISD2560	Voice record/playback (60 sec.)	8.99	8.49	7.99
120660ED	ISD2590	Voice record/playback (90 sec.)	8.99	8.49	7.99
141655ED	ISD25120P	Voice record/playback (120 sec.)	8.99	8.49	7.99

e-lab Digital Interface ICs
More @ www.Jameco.com/IC

Stepper Motor Controllers
Designed to interface a logic level input byte to a stepper motor.

Part No.	Product No.	Pins	Description	1	10	50
141532ED	EDE1200	18	Unipolar stepper motor controller	$8.95	$7.95	$6.95
157526ED	EDE1204	18	Bipolar stepper motor controller	8.95	7.95	6.95

KAE Servo Motor Controller
More @ www.Jameco.com/IC

Controllers operate from standard 8-bit serial interface (RS232 or RS485). Using RS485, any mix of up to 32 controllers may be operated from a single serial port. Complete documentation.

PIC-SERVO Motion Control Chipset for DC Motors
- PIC servo control for DC motors with digital encoders
- 32-bit position, velocity, and acceleration resolution
- PWM and direction outputs connect to servo amplifier
- Two chip set (PIC-SERVO 28-pin and PIC-ENC 18-pin)

Part No.	Description	Pins	1	10	50
146472ED	PIC-SERVO chip set, 0.3" DIP	28/18	$34.95	$29.95	$27.95

Optoisolators
22 more @ www.Jameco.com

Photo Transistors *General Purpose (6-Pin DIP)*
Single & Dual Channel

- Base lead connected
- NPN output transistor
- I_{CEO} (dark) Vce = 10V: 50nA max.
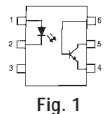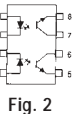- Isolation test voltage: 7.5k V-P; 5.3k Vrms

Fig. 1   Fig. 2

Part Number	Mfr. Cross Ref. No.	Fig.	Curr. Transfer Ratio (Min%)	Cont. Fwd. Curr. Max. (mA)	Vce (Sat) Max. (V)	Pricing 1	10	100	500
40985ED	4N25	1	20	50	0.5 (IF = 50mA) (Ic = 2mA)	$.28	$.25	$.23	$.21
41056ED	4N35	1	100	50	0.3 (IF = 10mA) (Ic = 5.0mA)	.39	.35	.25	.16
24918ED*	MCT6	2	20	50	0.4 (IF = 16mA) (Ic = 0.2mA)	.49	.45	.41	.40

* 2 independant isolators in one package, 8-pin DIP

ISOCOM Transistor/Detector *Quad Channel (16-Pin DIP)*

- High Isolation voltage/CTR/sensitivity
- 4 independent isolators in one package
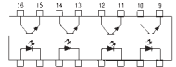- Isolation test voltage: 7.5k V-P; 5.3k Vrms
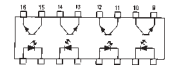
Part Number	Product Number	Curr. Trans. Ratio (Min%) IF = 10mA Vce = 10V	Cont. Fwd. Curr. Max. (mA)	Pricing 1	10	100	500
114083ED	ISQ203	225-450	50	$2.95	$2.65	$2.39	$2.15

ISOCOM Photo Transistor/Detector *(16-Pin DIP)*

- Isolation test voltage: 7.5k V-P; 5.3k Vrms
- NPN transistor • 1.17VF @ 10mA (typical)
- Continuous forward current (max.): 50mA
- Photo transistor/detector

Part Number	Product Number	Curr. Transfer Ratio (Min%)	BVCEO (Ic = 1mA)	Vce (Sat) IF=10mA; Ic=2mA	Pricing 1	10	100	500
160338ED	PS2501-4	80-6000	80V	0.3V max.	$1.35	$1.12	$.95	$.85

Color Code Legend
SALE REFURBISHED CLOSEOUT

Aluminum Radial-Lead Electrolytic Capacitors
General purpose low voltage 85°C (A); HT Type 105°C (B) ±20%

SALE

Operating temperature range		-40°C to +85°C (A); -40°C to +105°C (B)
Leakage Current (20°C)	After 1 min.	0.03CV or 4μA, whichever is greater
	After 2 min.	0.01CV or 3μA, whichever is greater

∗Prepackaged: order in increments of 10, 100 or 1000

Part Number	Mfr. Cross Reference No. †	Op. Temp	Value (μF)	Volt. (V)	Size (mm)* D x H	Pricing 1	10	100	500
94160ED	5R1/50	A	1	50	4x5	∗	$.12	$.08	$.05
29831ED	R1/50	A	1	50	5x11	∗	.057	.048	.038
93729ED	R2.2/50	A	2.2	50	5x11	∗	.038	.033	.026
135183ED	R3.3/50	A	3.3	50	5x11	∗	.07	.05	.035
31000ED	R4.7/50	A	4.7	50	5x11	∗	.038	.033	.026
94220ED	5R10/35	A	10	35	5x5	∗	.15	.12	.06
198942ED	R22J/35	A	22	35	5x11	∗	.035	.03	.025
198926ED	R33J/25	A	33	25	5x11	∗	.045	.035	.025
93745ED	R33/50	A	33	50	6x11	∗	.055	.05	.045
198951ED	R47J/35	A	47	35	5x10	∗	.05	.04	.03
198969ED	R100J/35	A	100	35	6.3x11	∗	.07	.06	.05
31181ED	R470/25	A	470	25	10x16	∗	.12	.10	.09
30015ED	R1000/16	A	1000	16	13x21	∗	.16	.14	.12
93841ED	R1000/50	A	1000	50	16x26	.52	.46	.41	.34
199110ED	R1000J/100	A	1000	100	18x40	3.59	2.69	1.99	1.55
30533ED	R2200/25	A	2200	25	16x36	.55	.49	.40	.30
158431ED	R2200B50	B	2200	50	16x31	.99	.89	.70	.61
93850ED	R4700/25	A	4700	25	18x35	.99	.85	.70	.55
199005ED	R4700J/35	A	4700	35	18x35.5	2.95	2.19	1.69	1.25
163301ED	R4700/50	A	4700	50	22x42	1.99	1.79	1.50	1.31

†RADIAL CAPACITOR CROSS REFERENCES *Capacitor dimensions and lead spacing may vary
Elna: RC2/RE2; **IC:** RAR/RSS; **Marcon:** SEM/SSM; **Nichicon:** LB/VX/USA/SR/SA; **Rubycon:** MS7/TWSS; **Sprague:** 501D/513D; **UCC:** SME/SRE/SRA/SRG; **Panasonic:** KA/KS/SU

Aluminum Axial-Lead Electrolytic Capacitors
General purpose low voltage 85°C

Operating temperature range	-40°C to +85°C
Leakage Current (After 2 minutes 20°C)	0.02CV or 2μA, whichever is greater

∗Prepackaged: order in increments of 10, 100 or 1000

Part Number	Mfr. Cross Ref. No. †	Value (μF)	Voltage (V)	Size (mm)* DxH	Pricing 1	10	100	500
10866ED	A1/50	1	50	5x13	∗	$.15	$.115	$.09
93569ED	A2.2/50	2.2	50	6x13	∗	.19	.14	.10
199267ED	A22J/25	22	25	6x12	∗	.20	.14	.10
199355ED	A47J/35	47	35	6.3x16	∗	.20	.14	.10
93551ED	A100/35	100	35	8x16	∗	.24	.19	.14
93649ED	A1000/35	1000	35	13x26	.79	.71	.65	.57
199478ED	A2200J/50	2200	50	18x42	2.55	2.10	1.95	1.75

* Capacitor dimensions may vary
† AXIAL CAPACITOR CROSS REFERENCES: **Elna:** RE2; **IC:** RAR; **Marcon:** SEM; **Nichicon:** LB/VX; **Rubycon:** TWSS; **Sprague:** 501D/513D; **UCC:** SME; **Panasonic:** SU

191 More @ www.Jameco.com/Capacitors

Jameco carries a wide variety of capacitors. Also see our website for memory back-up and snap-in devices.

Ceramic Disc Capacitors (±20%)
25 and 50 Volt, Z5U Temperature Coefficient

Operating temperature range	+10°C to +85°C
Cap. change over temp. range	+22% to -56%
Dielectric withstanding voltage	2.5 times rated volt. for not < 1 sec.

• **Prepackaged: order in increments of 10,100 or 1000**

Ceramic Disc Capacitors can be special ordered on ammo-style tape – 1000 piece minimum

Part Number	Mfr. Cross Ref. No.	Capacitance	Voltage (V)	Dia.* (mm)	Pricing 10	100	1000	5000
15333ED	DC10	10pF	50	5	$.07	$.05	$.02	$.015
15405ED	DC22	22pF	50	6	.07	.05	.025	.02
15190ED	DC.001	.001μF	50	6	.06	.05	.025	.022
15253ED	DC.047	.047μF	50	8	.084	.069	.057	.04
151116ED	DC.1/25	.1μF	25	6	.14	.13	.08	.07

*Capacitor dimensions and lead spacing may vary

Monolithic Ceramic Capacitors (±20%) (Z5U Series)

Applications:
• Data processing
• Communications engineering

SALE   Monolithic

Operating temperature range: -10°C to +85°C

Ceramic Disc Capacitors can be special ordered on ammo-style tape – 1000 piece minimum

∗Prepackaged: order in increments of 10, 100 or 1000

Part Number	Mfr. Cross Ref. No.	Capacitance	Volt. (V)	Size (mm)* W x T x H	Pricing 1	10	100	1000	5000
81541ED	MD10	10pF	50	3.5 x 2.0 x 3.0	∗	$.10	$.07	$.045	$.045
81533ED	MD22	22pF	50	4.0 x 2.0 x 4.0	∗	.095	.073	.045	.04
81525ED	MD100	100pF	50	3.5 x 2.0 x 3.0	∗	.09	.07	.045	.035
25507ED	MD.01	.01μF	50	3.5 x 2.0 x 3.0	∗	.09	.06	.04	.035
57621ED	MD.047	.047μF	50	2.5 x 2.5 x 3.0	∗	.10	.07	.05	.045
25523ED	MD.1	.1μF	50	6.0 x 2.0 x 4.0	∗	.07	.06	.04	.035
25558ED	MD.47	.47μF	50	4.5 x 2.5 x 4.5	∗	.25	.19	.13	.12
81509ED	MD1	1μF	50	6.0 x 3.0 x 7.0	.48	.43	.32	.23	.37

*Capacitor dimensions and lead spacing may vary

Dipped Tantalum Capacitors (±10%)
Resin Dipped Solid Tantalum Capacitors

• Flame retardant coating
• Exceptional temperature stability
• Low leakage current
• Moisture-resistant
• Designed for entertainment and commercial equipment

Operating temp. range	-55°C to +85°C (+125°C with derating)
Rated voltage DC	≤ + 85°C

∗Prepackaged: order in increments of 10, 100 or 1000

Part Number	Mfr. Cross Ref. No. †	Capacitance	Volt. (V)	Size (mm)* D x H	Pricing 1	10	100	1000
33486ED	TM.1	.1μF	35	4.5 x 7.0	∗	$.25	$.20	$.18
33507ED	TM.22	.22μF	35	4.5 x 7.0	∗	.25	.19	.15
33523ED	TM.33	.33μF	35	4.5 x 7.0	∗	.17	.15	.13
154860ED	TM1/25	1μF	25	3.0 x 6.0	∗	.29	.25	.22
33662ED	TM1	1μF	35	4.5 x 7.0	∗	.29	.25	.22
33734ED	TM2.2	2.2μF	35	4.5 x 7.5	.39	.35	.29	.25
94043ED	TM4.7/25	4.7μF	25	5.0 x 8.5	.50	.45	.39	.35
33806ED	TM4.7	4.7μF	35	5.5 x 9.0	.55	.48	.37	.27
94060ED	TM10/16	10μF	16	5.0 x 9.0	.45	.40	.31	.26
94078ED	TM10/25	10μF	25	5.5 x 9.0	.59	.50	.40	.36
33689ED	TM10	10μF	35	6.0 x 10.0	.89	.79	.69	.59
94094ED	TM22/16	22μF	16	6.0 x 10.0	.69	.59	.49	.45
94107ED	TM22/25	22μF	25	7.0 x 10.5	1.79	1.60	.93	.89
33785ED	TM33	33μF	25	8.0 x 13.0	2.59	2.25	1.79	1.22

*Capacitor dimensions and lead spacing may vary

† *Dipped Tantalum Capacitor Cross References*
Panasonic: EF Series; **AVX:** Tap Series; **Sprague:** 196D and 199D; **Kemet:** T350/ T360; **Mepco:** 49GS; **NEC:** DN; **Nichicon:** 599; **NIC:** NDTM; **Hitachi:** TSD-3; **Matsuo:** 202

.021" lead dia. | 1.08" | .250" | 1.08" | .09" body dia.

Single Resistor Value Pricing: 1/4-Watt Carbon Film Resistors (±5%)

To order: Use 5-digit part number adjacent to ohms in chart below
Values may not be combined for quantity price breaks

99¢/bag 100 piece bags

Pricing (Sold in bags of 100 pieces)				
Specify Part No. & Resistor Value	1 Bag	10 Bags	50 Bags	100 Bags
(see Standard Resistor Value Chart below)	$.99/bag	$.57/bag	$.49/bag	$.46/bag

For resistor values you can refer to our website @ www.Jameco.com

Assortment Pricing: 1/4-Watt Carbon Film Resistor (±5%)

Assortments may not be combined for quantity price breaks

Part No.	Description (Including bulk pack values)	1	10	25
10719ED	5 ea. of 70 values (every other value from 10 ohm-5.6 MΩ) (350 pcs.)	$9.95	$8.95	$7.95
103165ED	10 ea. of 24 values marked (●) and 50 ea. of 6 values marked (✕) (540 pcs.)	12.95	11.49	9.95
10663ED	100 ea. of 27 values marked (▲) (2,700 pcs.)	24.95	22.49	20.49
10655ED	100 ea. of 160 values (all resistor values in the chart below) (16,000 pcs.)	119.95	107.95	96.95
81832ED	1/4 watt resistor component cabinet kit – 30 values (540 pcs.) see page 29	27.95	24.95	22.49

More Resistors @ Jameco.com

Standard Resistor Values Chart

Part No.	Ohms	Part No.	Ohms	Part No.	Ohms	Part No.	Ohms	Part No.	Ohms	Part No.	Ohms	Part No.	Ohms	Part No.	Ohms
29882ED ▲●	10	30162ED ▲●	150	30963ED ●	390	29663ED ▲✕	1.0k	30314ED ▲●	2.2k	31237ED ▲●	5.1k	30453ED ▲●	22k	30525ED	220k
31106ED ▲●	47	30470ED ▲✕	220	31165ED ▲●	470	29735ED ●	1.2k	30390ED ▲●	2.7k	31270ED ▲●	5.6k	30841ED ▲●	33k	31202ED ▲●	470
29946ED ▲✕	100	30605ED ▲●	270	31376ED	560	29760ED ▲●	1.5k	30672ED ▲●	3.3k	29911ED ▲✕	10k	31149ED ▲●	47k	29698ED ▲●	1.0M
30082ED	120	30867ED ▲●	330	31499ED ▲●	680	30277ED ▲●	2.0k	31026ED ▲✕	4.7k	30146ED ▲●	15k	29997ED ▲✕	100k	29938ED ▲●	10M

Carbon Film Resistors

Any 1/8 or 1/2-Watt Resistor value (below) can be special ordered – 1000 pc minimum
• 1/8-W – $12.95/k (bulk) • 1/2-W – $15.95/k (bulk)

1/8-Watt Carbon Film Resistor (±5%) Assortments

1/8 & 1/2-Watt Resistor Assortments Value Chart (Ohms)

10 ✕	150 ✕	330 ✕	680 ✕	2.0k ✕	3.3k ✕	5.6k ✕	15k ✕	33k ✕	470k ✕
47 ✕	220 #	390 ✕	1.0k #	2.2k ✕	4.7k ✕	6.8k ✕	22k ✕	47k ✕	1.0M ✕
100 #	270 ✕	470 ✕	1.5k ✕	2.7k ✕	5.1k ✕	10k ✕	27k ✕	100k #	10M ✕

(✕), (#) symbols indicate Resistor values included in Assortments below.

Part No.	Cross Ref. No.	Values included	Description (see chart above)	Pricing 1	10
108302ED	ASST1830	✕ #	10 each of 24 values marked by ✕ and 50 each of 6 values marked above by # (540 pcs.)	$12.95	$11.49
108329ED	CAB182R	— —	1/8-watt resistor component cabinet kit – 30 values (540 pcs.) see page 41 SALE	24.95	22.49

1/2-Watt Carbon Film Resistor (±5%) Assortments

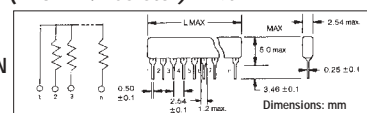| Part No.	Cross Ref. No.	Values Included	Description (see chart above)	Pricing 1	10
107879ED	CAB12R	—	1/2-watt resistor component cabinet kit – 30 values (540 pcs.) see page 41	$29.95	$26.95

Resistor Networks

Single-In-Line "SIP" Resistor Networks
8 and 10-Pin Bussed (125mW/Resistor) ±2%

Features (8BRN/10BRN):
• 8-pin package (7 resistors) = 8BRN
  10-pin package (9 resistors) = 10BRN
• Rated power per resistor
  at 70°C: 125mW/ resistor
• Op. temp. range: -55°C to +125°C
• Insulation resistance:
  10,000MΩ min. at 100V
• Solderability: per MIL-R-83401
• Low profile 5mm (.200" body height)
• Low profile is compatible with DIPs
• Cermet thick film construction

Dimensions: mm

Part No.	Pins	Ohms
97826ED	8	10k
97851ED	10	330
97869ED	10	470
97877ED	10	1.0k
97893ED	10	2.2k
24660ED	10	4.7k
24643ED	10	10k
98087ED	10	47k
98095ED	10	100k

✱ 10 piece minimum			
Pricing per each			
1	10	100	1000
✱ $.26	$.22	$.16	
Pricing for P/N 97826			
✱ $.22	$.19	$.13	

Dual-In-Line "DIP" Resistor Networks
16-Pin Isolated (140mW/Resistor) ±2%

Features (16IRN):
• Maximum operating voltage: 100V
• Insulation resistance: 10,000MΩ min.
• Lead solderability/solvent resistance:
  meets requirements of MIL-R-83401
• Power rating at 70°C: 2.25 watts
• Compatible with automatic
  insertion equipment
• Copper leads for excellent
  heat dissipation • Tolerance: ±2%

16 pins
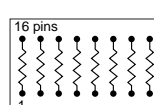
Part No.	Ohms
164005ED	33
108556ED	100
108564ED	220
108572ED	330
108581ED	470
108599ED	1.0k
108610ED	4.7k
108628ED	10k
108644ED	100k

Pricing per each			
1	10	100	1000
$.49	$.43	$.37	$.31

SMD Resistor Assortment (±5%)◆
144 Values, 50 pcs. each; 7,200 Pieces Total

Resistance Value Chart:

1.2	33	430	4.3k	51k	620k
1.6	39	470	4.7k	56k	750k
2.2	43	510	5.6k	62k	820k
2.4	47	560	6.2k	68k	910k
2.7	51	620	6.8k	75k	1.0M
3.0	56	680	7.5k	82k	1.6M
3.3	62	750	8.2k	91k	1.8M
4.3	68	820	9.1k	100k	2.0M
4.7	75	910	10k	110k	2.2M
5.1	85	1.0k	11k	120k	2.4M
5.6	91	1.1k	12k	150k	2.7M
6.2	110	1.2k	13k	160k	3.0M
6.8	120	1.3k	15k	180k	3.3M
7.5	130	1.5k	16k	200k	3.6M
8.2	150	1.6k	18k	220k	3.9M
9.1	160	1.8k	20k	240k	4.3M
10	180	2.0k	22k	270k	4.7M
16	200	2.2k	24k	300k	5.1M
18	220	2.4k	27k	360k	5.6M
20	240	2.7k	30k	390k	6.8M
22	270	3.0k	33k	430k	7.5M
24	300	3.3k	36k	470k	8.2M
27	360	3.6k	39k	510k	9.1M
30	390	3.9k	43k	560k	10M

• Surface mount 0805
  resistors, 144 values
  ranging from 1.2Ω to
  10MΩ (50 pieces of
  each value)
• Thickness: 0.5mm
• Size: 2.0mm x 1.25mm
• Max. overload
  voltage: 200V
• Op. temp.:
  -50°C to 120°C

Includes: Case w/ labels

Part No.	Mfr. Cross Ref. No.	1	10	25
172806ED	16-500◆	$79.95	$71.95	$64.79

◆ Surface mount

SMD Resistor Assortment (±1%)◆
56 Values, 200 pcs. each; 11,200 pcs. Total

Packaged in strips of 200 pieces each

Surface mount 1206
Series resistors, 56
values ranging from
10 to 1MΩ – see chart.

• Max. working voltage: 200V
• Max. overload voltage: 400V
• Power @ 70°C: 1/8W
• Op. temp.: -55°C to +125°C
• Temp. coefficient:
  ±100 ppm/°C
• 4-digit indication: 1st 3 significant, 4th multiplier

Value Chart (Ohms)

10	200	3.92k	75k
12.1	243	4.99k	90.9k
15	301	6.19k	100k
20	392	7.5k	121k
24.3	499	9.09k	150k
30.1	619	10k	200k
39.2	750	12.1k	243k
49.9	909	15k	301k
61.9	1k	20k	392k
75	1.21k	24.3k	499k
90.9	1.5k	30.1k	619k
100	2k	39.2k	750k
121	2.43k	49.9k	909k
150	3.01k	61.9k	1M

Part No.	Mfr. Cross Ref. No.	1	10	25
156881ED	SMR1206SB◆	$99.99	$89.99	$79.99

◆ Surface mount

SMD Plastic Fliptop Case◆
Store 128 Different Surface Mount Components

• Perfect solution for storing
  P/N 156881 SMD resistor
  assortment, left
• 8 rows x 16 column grid
• Fliptop openings on each bin
• Color: gray
• Padded cover locks bins closed
• Size: 11.0"L x 8.3"W x 1.7"Thick

Includes: Labels for each bin

Part No.	Description	1	10
164267ED	SMD fliptop case◆	$49.95	$44.99

◆ Surface mount

Looking for more? Jameco has it all.
See our website for a broad selection of Resistors.

1/2-Watt Linear Taper (±10%)
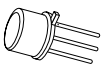
- Temperature range: -55°C to +125°C
- Non-rotational key
- Non-slotted shaft end
- Mounting hole: 0.3125"
- Shaft diameter: 0.25"
- Shaft length: 0.5625"
- Max. panel thickness: 0.1875"

Includes: Mounting hardware

29081ED

Part Number	Mfr. Cross Ref. No.	Ohms	Pricing			
			1	10	100	500
29049ED	P1K	1k	$.99	$.79	$.65	$.55
29081ED	P10K	10k	.99	.79	.65	.55

3/4-Watt, 3/4" Rectangular 15-Turn Linear Cermet (±10%)

41911ED

- Side adjusting
- PC pins: .100" grid (2.54mm)
- Sealed to guard against contaminants
- Temp. range:-55°C to +125°C

Part Number	Mfr. Cross Ref. No.	Ohms	Pricing			
			1	10	100	500
41937ED	43P500	500	$1.15	$.99	$.89	$.69
41890ED	43P5K	5k	1.15	.99	.89	.69
41822ED	43P10K	10k	1.15	.99	.89	.69
41911ED	43P50K	50k	1.15	.99	.89	.69

CLAROSTAT 2-Watt Linear Taper (±10%)

- 2W @ 70°C ambient
- Conductive plastic element
- Military No.: RV4N-AYSD
- Temp. range: -55° to +120°C
- Non-rotational key
- Shaft: dia.: 0.25"; length: 0.875"
- Mounting hole: 0.375"
- Max. panel thickness: 0.25"

Includes: Mounting hardware

95417ED

Part No.	Product No.	Ohms	1	10	50	100
183610ED	53C3-500	500	$7.95	$6.95	$5.95	$5.25
13936ED	CMU1021	1k	7.95	6.95	5.95	5.25
13995ED	CMU5021	5k	7.95	6.95	5.95	5.25
13952ED	CMU1031	10k	7.49	7.12	5.99	5.49
95417ED	CMU5031	50k	7.95	6.95	5.95	5.25

5-Watt Linear Taper Wire Wound (±20%)

- Temperature range: -10°C to 70°C
- Shaft diameter: 0.23" (6mm)
- Shaft length: 0.67", except P/N 140521ED (0.25")
- Mounting hole: 0.32"
- Max. panel thickness: 0.1"
- Non-rotational key

Includes: Mounting hardware

140513ED

Part Number	Mfr. Cross Ref. No.	Ohms	Pricing			
			1	10	50	100
140513ED	PW5B100	100	$2.99	$2.69	$2.39	$2.15
140521ED	PW5B500	500	2.95	2.65	2.39	2.15

1/2-Watt, 3/8" Square, Single-Turn Cermet (±10%)

- 1/2 watt linear taper @ 70°C
- PC pins: .100" grid (2.54mm)
- Sealed to guard against contaminants
- Pin Spacing: 0.1"
- Top adjusting
- Temp. range: -55°C to +125°C

SALE

42964ED

Cross Reference Chart

Equivalent to:	
Allen Bradley	E2B
Beckman	72PR
Bourns	3386P
Mepcopal	8038
Murata	3104P
Spectrol	63P
VRN	780-12P
Weston	840P

Part Number	Mfr. Cross Ref. No.	Ohms	Pricing			
			1	10	100	500
43123ED	63P500	500	$.79	$.65	$.55	$.45
42964ED	63P1K	1k	.79	.65	.55	.45
43043ED	63P2K	2k	.79	.65	.55	.45
43078ED	63P5K	5k	.79	.65	.55	.45
43001ED	63P10K	10k	.79	.65	.55	.45
43051ED	63P20K	20k	.79	.70	.59	.45
43107ED	63P50K	50k	.79	.65	.55	.45
43027ED	63P100K	100k	.79	.65	.55	.45
43060ED	63P300K †	300k	.79	.70	.59	.45
63212ED	63P500K	500k	.79	.65	.55	.45
42981ED	63P1MEG	1M	.79	.65	.55	.45
105216ED	63P2MEG †	2M	.79	.70	.59	.45

† Pin spacing 0.2"

48 More @ Jameco.com

Jameco carries a selection of **Multi-Turn and Trimmer Potentiometers.**

Crystals

SALE

- Frequency calibration tolerance: ± 50ppm @ 25°C
- Operating temp.: -10°C to +60°C
- Drive level: 4.0 mW max.
- Frequency stability tolerance: ±50 ppm from -10°C to +60°C
- Shunt capacitance: 7pF max.

Dimensions in millimeters

HC49/U (HC18/U) Case

Part Number	Mfr. Cross Reference No.	Frequency (MHz)	Impedance	Microprocessor	Pricing			
					1	10	100	1000
101274ED	CY2.457	2.4576	32pF	CDP1702/1802C/1804/1804C	$.99	$.89	$.79	$.69
14592ED	CY4	4.0	20pF	MCS-40/MC6802,8,9/CDP1802	.59	.54	.41	.39
14710ED	CY7.37	7.3728	30pF	8051/8031	.89	.80	.65	.45
120061ED	CY11.05	11.0592	Series	General purpose	.89	.79	.69	.59

Low Profile Crystals

- Frequency range: 3.5 to 70.0MHz
- Operating temp.: -10°C to +60°C
- Drive level: 0.5mW (fundamental frequency)
- Aging: ±5ppm/year maximum
- Frequency stability tolerance: ±50ppm

HC49/S Case

HC49/S Case (Low Profile)

Part Number	Mfr. Cross Reference No.	Frequency (MHz)	Imped.	Max. Resist.	Microprocessor	Pricing			
						1	10	100	1000
137832ED	CY4LP	4.000	17pF	120Ω	MCS-40/MC6802, 8, 9/CDP1802	$.99	$.89	$.79	$.69
137859ED	CY8LP	8.000	Series	60Ω	IM6100A/MC68B09	.75	.67	.59	.53

TTL Crystal Oscillators

- Input voltage: +5VDC ±0.5VDC
- Frequency stability ±100ppm
- OSC series oscillators fit into a 14-pin DIP socket PN 133006ED, below
- Operating temperature: 0°C to 70°C

27967ED

Pin #	Function
1	N/C
7	GND
8	Output
14	+5VDC

Part Number	Mfr. Cross Reference No.	Frequency (MHz)	Max Input Current	Rise Fall Time	Input Current	Output Current	Pricing			
							1	10	100	1000
27967ED	OSC4	4.0	7mA	10ns	50mA	-1mA	$1.99	$1.79	$1.59	$1.39
76857ED	OSC100	100.0	25mA	3ns	90mA	-4mA	2.49	2.25	1.95	1.75

34 More @ www.Jameco.com

Find a larger selection of **Crystals and Oscillators** on our website.

14-Pin Crystal Oscillator Socket

- Can be PCB mounted without the modifications that would be needed with DIP-IC sockets
- Low profile solder tail; machine tooled on 4 pins
- Good for prototyping and PCB mounting

Part No.	Description	1	10	100	1000
133006ED	Oscillator socket	$.55	$.46	$.34	$.31

Call for pricing on quantities over 5000 – we carry major manufacturers.

Any transistor may be supplied in ammo style tape by special order – 1000 piece min.

TO-18 Case **TO-39 Case** **TO-92 Case** **TO-220 Case**

✻ Prepackaged: order in increments of 10, 100 or 1000

Part Number	Mfr. Cross Ref. No.	Case	Description	Vceo	Min. h_{FE} @ Ic	Min. f_t (MHz)	NTE/ECG No.	Pricing 1	10	100	1000
33064ED	TIP32A	TO-220	PNP power transistor	60	10 @ 3A	0.5	292	$.49	$.44	$.39	$.36
38228ED	2N2219A	TO-39	NPN general purpose	40	100 @ 150mA	300	128	.59	.49	.45	.39
28628ED	PN2222	TO-92	NPN general purpose	30	100 @ 150mA	250	123AP	✻	.045	.027	.025
38236ED	2N2222A	TO-18	NPN general purpose	40	100 @ 150mA	250	123A	.39	.35	.29	.25
28644ED	PN2907	TO-92	PNP general purpose	40	100 @ 150mA	200	159	✻	.13	.12	.11
38279ED	2N2907A	TO-18	PNP general purpose	60	100 @ 150mA	200	129P	.36	.34	.31	.25
25831ED	MJE2955T	TO-220	PNP power transistor	60	20 @ 4A	2	332	.59	.53	.42	.32
25857ED	MJE3055T	TO-220	NPN power transistor	60	20 @ 4A	2	331	.57	.51	.45	.40
38359ED	2N3904	TO-92	NPN general purpose	40	100 @ 10mA	300	123AP	✻	.08	.06	.045

Small-Signal High-Voltage

Part No.	Product No.	Case	Desc.	Vceo	Min. h_{FE}@Ic (mA)	1	10	100	1000
178546ED	MPSA42	TO-92	NPN	300	40 @ 10	$.22	$.19	$.15	$.12

SAMSUNG Power

Part No.	Product No.	Case	Desc.	Vceo	Min. h_{FE}@Ic	1	10	100	1000
179354ED	TIP31C-SAM	TO-220	NPN	100	10 @ 3A	$.52	$.39	$.27	$.27
179371ED	TIP41C-SAM	TO-220	NPN	100	15 @ 3A	.65	.53	.45	.39
179389ED	TIP42C-SAM	TO-220	PNP	-100	15 @ 3A	.55	.50	.45	.40

Small-Signal General-Purpose *SALE*

Prepackaged: order in increments of 10, 100 or 1000

Part No.	Product No.	Case	Desc.	Vceo	Min. h_{FE}@Ic (mA)	10	100	1000
178511ED	PN2222A	TO-92	NPN	40	100 @ 150	$.09	$.06	$.04
178520ED	PN2907A	TO-92	PNP	-60	100 @ 150	.09	.06	.04
38375ED	2N3906	TO-92	PNP	40	100 @ 10	.05	.04	.03

N-Channel MOSFETs *SALE*

✻ Prepackaged: order in increments of 10, 100 or 1000

Part No.	Mfr. Cross Ref. No.	Case	Drain Source Brkdwn Vltg.	Min. On-State DS Current	Pricing 1	10	100	1000
178669ED	2N7000-FSC	TO-92	60VDC	0.2A	✻	$.12	$.11	$.10
184719ED	IRF840	TO-220	500VDC	8.0A	1.49	1.29	.99	.89

Rectifiers, Triacs, SCRs and Diodes

WOG **4-Pin DIP Case** **4-lead Molded Case** **KBP type** **179-01 Case** **TO-126 Case** **TO-220/AB** **DO-27A/DO-41/DO-35**
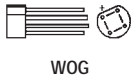
Full Wave Bridge Rectifiers *SALE*

Part No.	Mfr. Cross Ref. No.	NTE/ECG	Case	Description	Pricing 1	10	100	1000
103018ED	W02G	—	WO type	200 PRV, 1A	$.32	$.30	$.22	$.19
103042ED	DF02M	5332	4-pin DIP	200 PRV, 1A	.31	.27	.21	.18
103034ED	DF06M	5332	4-pin DIP	600 PRV, 1A	.35	.29	.23	.19
145429ED	KBP02M	—	KBP type	200 PRV, 1.5A	.49	.44	.39	.29
25574ED	MDA990-3	5322	179-01	200 PRV, 30A	4.49	3.99	3.39	2.89

Silicon Rectifiers

Part No.	Mfr Cross Ref. No.	NTE/ECG	Case	Description	Pricing 10	100	1000
35975ED	1N4001	116	DO-41	50 PRV, 1A	$.03	$.025	$.02
35991ED	1N4004	116	DO-41	400 PRV, 1A	.04	.025	.02
36011ED	1N4007	125	DO-41	1000 PRV, 1A	.04	.03	.025
36265ED	1N5404	5804	DO-27A	400 PRV, 3A	.11	.07	.055
36273ED	1N5408	5809	DO-27A	1000 PRV, 3A	.15	.11	.08

Triacs

Part Number	Mfr. Cross Ref. No.	NTE/ECG	Case	Description	Pricing 1	10	100	1000
140425ED	2N6071A	5603	TO-225AA	200 V$_{DRM}$, 4A	$.49	$.39	$.32	$.29
31819ED	SC146B	5633	TO-220	200 V$_{DRM}$, 10A (2N6342)	1.69	1.52	1.37	1.23

Zener Diodes *SALE*

Prepackaged: order in increments of 10, 100 or 1000

Part No.	Mfr. Cross Ref. No.	NTE/ECG	Case	Description	Pricing 10	100	500	1000
36089ED	1N4732	5096	DO-41	4.7V @ 53mA 1 W	$.09	$.06	$.05	$.04
36097ED	1N4733	135A	DO-41	5.1V @ 49mA 1 W	.09	.06	.05	.04
36118ED	1N4734	136A	DO-41	5.6V @ 45mA 1 W	.09	.06	.05	.04
36126ED	1N4735	137A	DO-41	6.2V @ 41mA 1 W	.09	.06	.05	.04
36169ED	1N4742	142A	DO-41	12.0V @ 21mA 1 W	.09	.06	.05	.04

Rectifiers

Prepackaged: order in increments of 10, 100 or 1000

Part No.	Product No.	Case	Description	10	100	1000
35975ED	1N4001	DO-41	50 PRV, 1A	$.03	$.025	$.02
76961ED	1N4002	DO-41	100 PRV, 1A	.03	.025	.02
76970ED	1N4003	DO-41	200 PRV, 1A	.04	.025	.02
35991ED	1N4004	DO-41	400 PRV, 1A	.04	.025	.02

Switching Diodes

Prepackaged: order in increments of 10, 100 or 1000

Part No.	Mfr. Cross Ref. No.	NTE/ECG	Case	Description	10	100	1000
35967ED	1N3600	519	DO-35	50 PRV @ 100μa, 200mA	$.12	$.10	$.08
36038ED	1N4148	519	DO-35	75 PRV @ 50μa, 10mA	.04	.03	.025

275 More @ www.Jameco.com

For additional electronic components and our latest selection
of Passive and Inductive products log onto Jameco's website today!
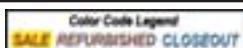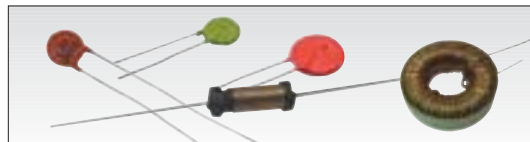
Color Code Legend
SALE REFURBISHED CLOSEOUT

Call for OEM PRICING – we carry major manufacturers.

Diffused

Water Clear

National Semiconductor

LITEON

TEXAS INSTRUMENTS

Fig. 1

Fig. 2
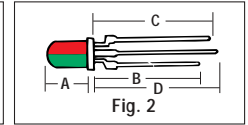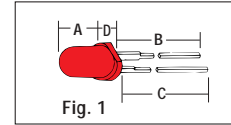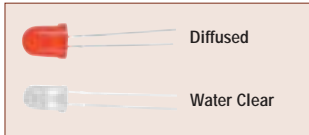
Standard-Output LEDs

SALE

❋ Prepackaged: order in increments of 10, 100 or 1000

Part Number	Mfr. Cross Ref. No.	Fig.	Emitting Color	Lens/Feature Description	LED Size	Diameter inch/mm	Dimensions (Inches)				Lead Spacing	Typical Vf @ If (mA)	Typical mcd @ mA	Wavelength nm	Pricing			
							A	B	C	D					1	10	100	1000
137411ED	LVB2040	1	Blue	Blue diffused	T1	.119/3	0.21	0.98	1.03	0.04	0.10	5.5 @ 20	7.0 @ 20	430	$2.49	$2.25	$1.95	$1.69
34622ED	LR2040	1	Orange Red	Red diffused (XC209R)	T1	.119/3	0.14	1.09	1.14	0.04	0.09	2.0 @ 20	1.5 @ 10	655	❋	.15	.13	.095
94529ED	LH2040	1	Red	Red diffused (XC209RB)	T1	.119/3	0.18	1.04	1.13	0.03	0.07	2.0 @ 20	2.7 @ 20	700	❋	.19	.15	.12
138691ED	LVB3330	1	Blue	Blue diffused	T1 3/4	.197/5	0.34	0.98	1.03	0.06	0.08	5.5 @ 20	10 @ 20	430	2.49	2.25	1.95	1.75
134332ED	LT18B3-81UR	1	Blue	Water clear	T1 3/4	.197/5	0.30	0.93	1.00	0.04	0.10	5.0 @ 20	630 @ 20	428	2.65	2.45	2.25	1.95
34761ED	LG3330	1	Green	Green diffused (XC556G)	T1 3/4	.197/5	0.31	0.79	0.88	0.04	0.09	2.8 @ 20	12 @ 10	565	❋	.15	.14	.10
94511ED	LH3330	1	Red	Red diffused (XC556RB)	T1 3/4	.197/5	0.31	0.81	0.86	0.04	0.08	2.8 @ 10	4.0 @ 10	697	❋	.17	.13	.10
34673ED	LHG3392	2	Red/Green	White diff. bi-color/tri-state[1]	T1 3/4	.197/5	0.30	1.02	1.05	1.12	0.03	2.8 @ 20	3 & 12 @ 10	697/565	.29	.25	.19	.15

[1] Reverse polarity to change color

LEDTECH LEDs

• Typical DC forward current 20mA

SALE

Ledtech is a QS9000 and ISO-9000 Certified Company

152864ED
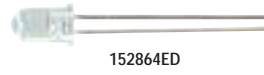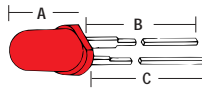
❋ Prepackaged: order in increments of 10, 100 or 1000

Part Number	Product Ref. No.	Emitting Color	Lens/Feature Description	LED Size	Dia. (inch/mm)	Dimensions (Inches)				Lead Spacing	Typical Vf @ If (mA)	Typical mcd @ mA	Wavelength nm	Pricing			
						A	B	C	D					1	10	100	1000
152768ED	LT0324-41	Green	Green clear	T1	.119/3	0.20	0.89	0.95	—	0.10	2.1 @ 20	20 @ 20	567	❋	$.17	$.14	$.11
152750ED	LT0344R-41	Orange Red	Red clear	T1	.119/3	0.20	0.89	0.95	—	0.10	2.1 @ 20	23.5 @ 10	635	❋	.19	.16	.12
152864ED	LT1873-81	Red Super Brt.	Water clear	T1 3/4	.197/5	0.34	0.89	0.95	—	0.10	1.7 @ 20	1000 @ 20	660	.29	.24	.19	.15
152805ED	LT1873-81-UR	Red Ultra Brt.	Water clear	T1 3/4	.197/5	0.34	0.89	0.95	—	0.10	1.9 @ 20	2000 @ 20	660	.29	.25	.19	.15
156970ED	LT1873-UR-C07	Red Ultra Brt.	Water clear (wide angle)	T1 3/4	.197/5	0.34	0.89	0.95	—	0.10	1.9 @ 20	2112 @ 20	660	.35	.31	.25	.19

LED Mounting Hardware

SALE

95513ED   23077ED   95521ED

Prepackaged: order in increments of 10, 100 or 1000

Part No.	Mfr. Cross Ref. No.	Description	Color	Mounting Hole Dia.	Panel Thickness	Pricing		
						10	100	1000
95513ED	LMH100	T1 snap-in	Black	.185"	Up to .070"	$.08	$.07	$.04
23077ED	LMH200	T1 3/4 ring & clip	Black	.257"	Up to .125"	.15	.135	.12
95521ED	LMH250	Rect. snap-in	Black	.306" x .202"	Up to .092"	.20	.18	.16

Panel Mount LED Indicators

• Easy panel installation
• Panel/status/ instrument indicators
• Vf @ If: 2V @ 20mA
• Color: red
• Chrome housing

141129ED: LED size: T1
141137ED: LED size: T1 3/4

• Mounting hole: .24"
• Mounting hole: .31"

Part No.	Mfr. Cross Ref. No.	Dimensions (in.)			Pricing		
		L	A	B	1	10	100
141129ED	L913RD	.56	.39	.32	$1.09	$.85	$.79
141137ED	L917RD	.70	.55	.47	.89	.79	.71

T1 3/4 Cliplite® LED Lens Mount

• Requires no assembly tools, just snap in
• Material: lens – polycarbonate; spacer – nylon
• Increases viewing angle to 180°
• Devices mount on .375" centers
• Helps guard against electrostatic discharge up to 16kV while affording the LED physical protection

29612ED

Fig. 1 (5mm)   Fig. 2 (5mm)
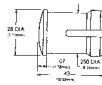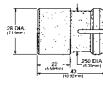
Part No.	Product No.	Description	Color	Fig.	Mounting Hole Dia.	Panel Thickness	Pricing			
							1	10	100	1000
14277ED	CLF280CTP	T1 3/4	Clear	1	.25"	.063" –.125"	$.24	$.21	$.18	$.15
29612ED	CLF280RTP	T1 3/4	Red	1	.25"	.063" –.125"	.25	.22	.19	.17
124927ED	CLB300CTP	T1 3/4	Clear	2	.25"	.031" – .25"	.24	.21	.18	.15

More @ www.Jameco.com

Additional Hi-Output LEDs and Accessories on our website.

Infrared Emitters

• Use for remote control and/or for fiber optics
• **P/N 133946ED:** Can be used with cameras, see pg 75 (peak emission wavelength: 940nm @ If 20mA)

SALE

29612ED
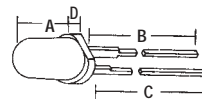
Part No.	Mfr. Cross Ref. No.	Description	Size	Diameter inch/mm	Dimensions (inches)				Vf @ If	nm	mWatts	Pricing			
					A	B	C	D				1	10	100	1000
106526ED	TLN110	Infrared emitter diode (GaAs)	T1 3/4	0.200/5	0.34	0.78	0.84	0.04	1.2V @ 20mA	940	9	$.39	$.29	$.19	$.15
133946ED	SLI-0308CP	Infrared emitter diode (GaAs)	T1	0.12/3	0.22	0.98	1.00	0.03	1.7V @ 50mA	940	200	.69	.59	.45	.35

High-Output LEDs

- Typical DC forward current 20mA
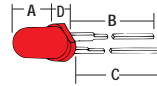
SALE

Part No.	Mfr. Cross Reference No.	Emitting Color	Lens/Feature Description	LED Size	Diameter inch/mm	Dimensions (Inches) A	B	C	D	Lead Spacing	Typical Vf @ If (mA)	Typical mcd @ mA	Wavelength nm	Pricing 1	10	100	1000
131895ED	TLSH180P	Orange	Water clear	T1 ³/₄	.197/5	0.39	0.80	0.86	0.06	0.10	2.1 @ 20	7000 @ 20	623	$2.49	$2.19	$1.95	$1.79
215597ED	LT2K33-81-UC9T	Yellow	Water clear	T1 ³/₄	.197/5	0.31	0.89	0.95	0.04	0.10	2.2 @ 20	5000 @ 20	590	.59	.55	.49	.45
183214ED	MCDPG503PCI	Green	Water clear	T1 ³/₄	.197/5	0.30	1.04	1.09	0.04	0.08	3.5 @ 20	2200 @ 20	515	2.95	2.65	2.39	2.15
183222ED	MCDL513SBC4	Blue	Water clear	T1 ³/₄	.197/5	0.29	1.02	1.13	0.04	0.08	5.0 @ 20	3000 @ 20	470	3.25	2.95	2.65	2.39
183231ED	T18W133196	White	Water clear	T1 ³/₄	.197/5	0.30	1.06	1.12	0.04	0.08	3.6 @ 20	3000 @ 20	—	2.95	2.65	2.39	2.15
142893ED	CLP1509	White	Water clear	T1 ³/₄	.197/5	0.34	0.79	0.88	0.04	0.08	3.6 @ 20	3700 @ 20	—	3.95	3.59	2.95	2.75
197641ED	BVT529T13E	Yellow	Yellow transpt.	Oval	.170/.220	0.29	1.04	1.09	—	0.08	2.3 @ 20	7800 @ 20	590	.69	.62	.55	.49

LED Displays

The general advantages of LED displays compared to incandescent types include:
- Longer lifetime (averaged more than 300,000 hours) • Lower power consumption
- Compact size suitable for instrumentation and graphic representations

Soldering:
- Soldering bath: not more than 5 seconds @ 260°C
- Soldering iron: not more than 3 seconds @ 300°C under 30W

24740ED & 24782ED   17187ED   32951ED   118906ED

hp invent   National Semiconductor   LEDTECH   ROHM   LITEON   Texas Instruments   Panasonic

7-Segment Displays

Part No.	Mfr. Cross Reference No.	Character Height	Illuminated Color	Buss Polarity*	Pins/ Leads	Typical Vf @ If (mA)	Typical mcd @ mA	Wavelength nm	Decimal Point #	Pricing 1	10	100	1000
24740ED	LSD3221-11	.300"	Red	CA	11	2.1 @ 20	2.5 @ 20	697	LHDP	$.79	$.72	$.64	$.58
24782ED	LSD3211-11	.300"	Red	CC	10	2.1 @ 20	2.5 @ 20	697	RHDP	.89	.75	.65	.49
17187ED	LSD5051-11	.500"	Red	CC	10	2.1 @ 20	0.9 @ 20	697	RHDP	.89	.80	.72	.65
17208ED	LSD5061-11	.500"	Red	CA	10	2.1 @ 20	0.9 @ 20	697	RHDP	.89	.75	.65	.49
24715ED	LDD5121-20	.560"	Red	2-digit CA	18	2.1 @ 20	0.8 @ 20	697	RHDP	1.25	1.05	.89	.75
97199ED	LSD23265-10	2.24"	Red	CA	10	1.7 @ 20	21 @ 20	660	RHDP	5.75	5.19	4.69	4.19
105591ED	LSD40054-20†	4.0"	Orange Red	CA	10	2.0 @ 20	18 @ 20	635	RHDP	9.49	8.29	7.49	6.49

† P/N 105591: 5 diodes per segment

SALE

Dot Matrix Displays

Part No.	Mfr. Cross Reference No.	Jameco Socket Number	Character Height	Illuminated Color	Buss Polarity*	Pins/ Leads	Typical Vf @ If (mA)	Typical mcd @ mA	Wavelength nm	Decimal Point #	Pricing 1	10	100	1000
173833ED	HP5082-7300	—	.290"	Red	4x7 Numeric	8	5.0 @ 170	.03 @ 20	660	RHDP	$7.95	$7.19	$5.75	$4.25
32951ED	TIL311	37161ED	.300"	Red	4x7 Hex character	11	5.0 @ 5	0.1 @ 5	660	—	16.95	14.35	12.92	11.62
118906ED	LTP747R	37161ED	.680"	Orange Red	5 x 7 AC/CR	12	1.7 @ 20	0.2 @ 20	655	—	1.95	1.79	1.45	1.05
183265ED	LMD5821ASR-20	—	2.3"	Red	5 x 8 CC/AR	14	1.7 @ 20	12 @ 20	660	—	4.95	4.49	3.95	3.49

* CA-Common Anode/CC-Common Cathode/AC-Anode Column/CR-Cathode Row/AR-Anode Row # LHDP-Left Hand Decimal Point / RHDP-Right Hand Decimal Point

CDS Photocells

- Generate variable signal based on detection of light levels
- Operating temperature: -30°C to +70°C
- Applications: auto-focus lenses, exposure meters, contrast controls for TVs, dimmer or light switches, flame detectors, electronic toys, street lamp switches, optocouplers
- Soldering: 230°C for 3 seconds
- Cadmium Sulfide (CDS)

120299ED

Part No.	Mfr. Cross Ref. No.	Rating Vp	mW	Resistance (Ω) Dark	Light	Size (inches) A	B	Lead Spacing (inches)	Lead Length (inches)	Pricing 1	10	100	1000
136063ED	CDST18	20	40	100k	10k	0.14	0.17	0.10	1.50	$.69	$.62	$.55	$.49
120299ED	CDS0045001	350	400	300k	8k	0.38	0.43	0.30	1.44	1.79	1.59	1.45	1.29

LCD Modules

Scott Edwards Electronics, Inc. **Serial LCD Modules**

Ideal for use w/ BASIC Stamps (pg 78), 80C52-BASIC controllers (pg 23) and PCs!

Includes instruction codes for character gen., cursor control, printing, etc. Examples for Stamps in PBASIC included.

16 characters x 2 lines Integrated Display
- Terminal style 1200–9600bps serial input with 16-byte input buffer
- EEPROM storage of settings, six custom characters, and a splash screen
- Serial control of the standard LED backlight
- Low current draw; 5mA (backlight off) to 40mA (backlight on and bright)
- Power requirement: 4.8 – 5.5VDC @ 5mA (recommend P/N 164101ED, pg 39)

16 characters x 2 lines LCD Serial Backpack®
- High-contrast supertwist display
- Serial "backpack" accepts RS-232, or inverted CMOS, TTL at 2400 or 9600bps
- Power requirement: 4.8 – 5.5VDC @ 3mA (recommend P/N 164101ED, pg 39)
- Connector: 5-pin header (recommend P/N 163686ED, see web)

Part No.	Description	Module Size (LxWxT)	1	10	25
150990ED	LCD module	3.2" x 2.0" x 0.5"	$48.95	$44.09	$39.65

Part No.	Description	Module Size (LxWxT)	1	10	25
133129ED	LCD module	3.1" x 1.4" x 0.7"	$59.95	$53.99	$48.99

Color Code Legend
SALE REFURBISHED CLOSEOUT

Point Six **16 x 4 Parallel LCD Module**

- 16 x 4 character display (.78"H)
- Character font: 5 x 8 dots
- Input data: 4-bit or 8-bit interface available
- Display size: 2.4"L x 1.0"W x 0.06"T

Requires: 4.5V @ 2mA wall transformer (recommend P/N 164101ED, pg 39)

Part No.	Description	Module Size (LxWxT)	1	10	25
151933ED	16 x 4 parallel LCD	3.4" x 2.4" x .25"	$24.95	$22.49	$19.95

Serial LCD Interface Module

For Parallel LCD Displays with Hitachi 44780 Chipset

- Supports 1 x 8 thru 4 x 20 LCD display formats
- Provides word wrap, control character processing for display blanking, cursor blanking, up-down-left-right cursor controls
- Compatible with P/Ns 151933ED (above) and 171715ED (right)

TRISYS

Part No.	Description	Size (LxW)	1	10	25
157981ED	LCD serial module	1.5" x 1.0"	$22.95	$20.95	$18.95

0.6" High 3½-Digit LCD Digital Panel Meters

- Automatic polarity indication
- Input impedance: >100MΩ
- Input Ranges: 200mV, 20V, 200V, 500V
- Accuracy: ±0.5%   • Bezel
- Dimensions: 2.7"L x 1.7"W
- Supply voltage: 8-12VDC (recommend 9V battery P/N 151095ED, pg 77)

175951ED

Part No.	Description	1	10	25
175951ED	"1999" LCD DPM	$12.95	$11.95	$10.95
146835ED	"1999" LCD DPM backlit display.............................	19.95	17.99	16.19

40 x 2 Parallel LCD Module with Backlight

- 40 x 2 character display
- Control chip HCD44780
- Character font: 5 x 8 dots
- Column driver: KS0063B
- Backlight: yellow-green
- Supply voltage (logic): 5VDC @ 5mA
- Display size: 5.81"L x 0.45"W
- Module size: 7.2"L x 1.4"W x 0.4" Thick

Part No.	Description	1	10	25
215159ED	40 x 2 parallel LCD	$29.99	$26.99	$24.29

More @ www.Jameco.com
See our website for our complete selection of LCD Modules and Displays.

LCD Parallel Display

16 Characters x 2 Lines

- 14-pin/terminals
- Controller: KS0066U or equivalent
- Character font size: 0.125"W x 0.200"H
- Max. input voltage: 5.3VDC
- 8-bit interface data bus
- Display size: 2.5"L x 0.7"W
- Operating input voltage: 5VDC (recommend P/N 164101ED, pg 39)

Part No.	Product No.	Module Size (LxWxT)	1	10	25
171715ED	AC162A	3.4" x 1.2" x 0.5"	$19.95	$17.95	$15.95

16 Characters x 2 Lines Serial LCD Module

- Backlight control, bar graphs, large digits, multiple displays, software contrast control, auto line wrapping, and auto scroll feature
- Serial input at 1200–19,200bps (jumper selectable)
- Connect 16 modules using same 2 wire interface
- Backlight supply current: 40mA typical
- Display size: 2.5"L x 0.7"W
- Power requirement: 5VDC @ 9mA (recommend P/N 164101ED, pg 39)

SALE

Includes: Manual and software

Part No.	Description	Module Size (LxWxT)	1	10	25
174166ED	16 x 2 w/ interface	3.2" x 1.5" x 0.8"	$52.39	$51.19	$49.95

20 x 4 Serial LCD Modules

- 20 characters x 4 line display with large digit mode
- Backlight control, bar graphs, large digits, multiple displays, software contrast control, auto line wrapping and auto scroll feature
- Backlight supply current: 90mA typical
- Serial input at 1200–19,200bps (jumper selectable)
- Connect 16 modules using the same 2 wire interface
- Display size: 3.0"L x 1.0"W

150957ED

Includes: Manual and software

150957ED: 20 x 4 Serial LCD Module
- Power requirement: 5VDC @ 10mA typical (recommend P/N 164101ED, pg 27)

SALE

157323ED: 20x4 Serial LCD Module with keypad Interface
- Power requirements: 5VDC @ 16mA typical (recommend P/N 164101ED, pg 27)

157323ED

Part No.	Description	Module Size (LxWxT)	1	10	25
150957ED	LCD module	3.9" x 2.4" x 0.7"	$54.19	$52.69	$51.19
157323ED	Module w/ interface	3.7" x 2.4" x 1.1"	72.95	71.15	68.99

AC Tube Axial Fans
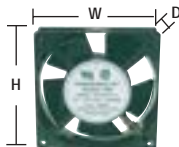
- Rating 115 & 220VAC @ 50/60Hz
- Low acoustical noise rating
- Agency approved fans
- Ball and sleeve bearings
- Air flow from 11 to 211 CFM

124062ED   **106585ED**   **16934ED**   **102891ED**

Part Number	Manufacturer	Product Number	Voltage (VAC)	Dimensions (W" x H" x D")	Air Flow (CFM)	Bearing	Current (mA)	Power (Watts)	Agency Approvals	Noise (dBA)	Connection (Leads)	1	10	50	100
162704ED	Toyo	USTF60301153W	115	2.36 x 2.36 x 1.18	11	Ball	38	4	UL/CSA/CE	29	12" leads	$15.95	$14.39	$12.95	$11.65
124062ED	Sunon	SP101AT1122HBT	115	4.68 x 4.68 x 1.00	78	Ball	180	18	CSA/TUV/CE	46	terminals	14.95	13.49	12.15	10.95
118965ED	Fulltech	UF12A12BTL1	115	4.68 x 4.68 x 1.50	64	Ball	80	15	UL/CSA/TUV/CE	37	terminals	14.95	13.49	12.15	10.95
106585ED	Common Wealth	FP108-1-S1/T	115	4.68 x 4.68 x 1.50	105	Sleeve	180	12	UL/CSA/CE	47	terminals	14.95	13.49	12.15	10.95
16934ED	Common Wealth	FP108-1-S1-B	115	4.68 x 4.68 x 1.50	105	Ball	200	17	UL/CSA/TUV/CE	47	terminals	16.95	15.29	13.75	12.39
102883ED	Sunon	SP100A-1123XBT	115	4.68 x 4.68 x 1.50	117	Ball	240	20	UL/CSA/TUV/CE	50	terminals	14.95	13.95	12.95	11.95
108724ED	Fulltech	UF15AC12BTH	115	6.75 x 5.90 x 1.50	211	Ball	230	28	UL/CSA/TUV/CE	58	terminals	29.95	26.95	23.95	21.49
102891ED	Sunon	DP200A-2123XBT	220	4.68 x 4.68 x 1.50	117	Ball	120	21	UL/CSA/TUV/CE	50	terminals	15.95	14.39	12.95	11.65

Straight and Right-Angle 24" Fan Cords

- Cord type: SPT-1 (2) conductor black   • Volt. rating: 300V   • Temp.range: 60°C   • Fits all terminal fans

Part No.	Description	Length	1	10	100	250
28564ED	Straight socket cord	24"	$.89	$.75	$.69	$.65
104192ED	90˚ angle socket cord	24"	1.19	1.09	.96	.87

28564ED   **104192ED**

Call for additional OEM PRICING – we carry major manufacturers.

- Low profile
- Ball and sleeve bearings
- Power input by lead wires or terminals
- PBT black thermo plastic frame and impeller
- Agency approved
- Low power consumption
- Low acoustical noise rating

SALE
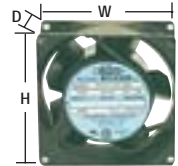
134586ED 102955ED 75467ED 102875ED

Part Number	Manufacturer	Product Number	Voltage (VDC)	Dimensions (W" x H" x D")	Air Flow (CFM)	Bearing	Current (mA)	Power (Watts)	Agency Approvals	Noise (dBA)	Connection (Leads)	Pricing 1	10	50	100
161699ED	Sunon	KD1204PFB2-8	12	1.60 x 1.60 x 0.40	6.3	Ball	70	0.6	UL/CSA/TUV	30	12"	$7.95	$6.95	$6.25	$5.59
213891ED	Adda	AD0412MB-D50	12	1.60 x 1.60 x 0.60	8.1	Ball	100	1.2	UL/CUL/CE	31.8	11.5"	7.95	7.19	6.45	5.85
136178ED	Adda	AD0412MS-C70	12	1.60 x 1.60 x 0.80	5	Sleeve	110	1.32	UL/CSA	23	9"	5.49	4.99	3.99	2.99
75344ED	Delta	DFB0412M	12	1.60 x 1.60 x 0.80	7.3	Ball	80	0.8	UL/CSA/VDE/CE	28	4.5"	7.69	6.95	6.25	5.65
175046ED	Globe Motors	D24-B08A-04W3-000	12	2.36 x 2.36 x 0.80	10.6	Ball	90	0.8	UL/CSA/TUV/CE	22	13"	6.95	6.29	5.05	3.79
75352ED	Common Wealth	FP108FDC12VS2	12	2.36 x 2.36 x 1.00	15.5	Sleeve	110	1.3	UL/CSA/TUV/CE	25	12"	6.95	6.29	5.05	3.79
150421ED	Jamicon	JF0625B1H	12	2.36 x 2.36 x 1.00	20.5	Ball	230	2.7	UL/CSA/TUV	30.5	10"	6.95	6.29	5.65	5.09
134586ED	Delta [1]	BFB0712H	12	2.98 x 2.98 x 1.18	11.3	Ball	360	2.6	UL/CSA/TUV/VDE	38	4"	11.95	10.79	8.65	6.49
16993ED	Various [2] *	FAN7315SL	12	3.15 x 3.15 x 1.00	25-40*	Sleeve	120-200*	1-2*	UL/CSA*	25*	4-12"*	6.95	6.29	5.65	4.95
75361ED	Various*	FAN6315BL	12	3.15 x 3.15 x 1.00	25-40*	Ball	120-200*	1-2*	UL/CSA*	25*	4-12"*	5.95	5.39	4.35	3.25
131748ED	NMB	3110KL-04W-B10	12	3.15 x 3.15 x 1.00	25	Ball	140	1.3	UL/CSA	25	9"	7.95	7.19	5.99	4.19
154288ED	Sunon	KDE1208PTS3-6	12	3.15 x 3.15 x 1.00	29.4	Sleeve	120	1.4	UL/CSA/TUV/CE	24.5	5.5"	4.55	4.09	3.29	2.45
185826ED	NMB [3]	3110KL-04W-B69	12	3.15 x 3.15 x 1.00	42	Ball	340	3.1	UL/CSA/VDE/CE	35	13"/3 leads	6.95	6.29	5.05	3.79
102955ED	Sunon	KD1208PTB1-6	12	3.15 x 3.15 x 1.00	42.5	Ball	220	2.6	UL/CSA/TUV/CE	33.5	12"	5.25	5.10	5.02	4.95
172460ED	Nidec [2]	TA300DCM33406-68	12	3.15 x 3.15 x 1.00	43	Ball	290	3.5	UL/CSA	41	11"/3 leads	9.95	8.99	7.19	5.39
190983ED	Sunon	KD1209PTB1-6A	12	3.63 x 3.63 x 1.00	51	Ball	220	2.6	UL/CSA/TUV	34	12"	9.49	7.59	5.69	3.99
162739ED	NMB (Smart Fan)[1]	3610KL-04W-B56	12	3.63 x 3.63 x 1.00	55	Ball	430	3.8	UL/CSA/VDE/CE	37	10"/3 leads	7.95	7.19	5.75	4.35
174140ED	Common Wealth	FP108MS3	12	4.68 x 4.68 x 1.00	54	Sleeve	140	1.7	UL/CSA/TUV/CE	25	12"	6.95	6.29	5.05	3.79
75467ED	NMB	4710NL-04W-B30	12	4.68 x 4.68 x 1.00	80	Ball	320	3.8	UL/CSA/VDE/CE	34	12"	9.95	8.95	8.09	7.29
102875ED	Delta	WFB1212H	12	4.68 x 4.68 x 1.00	86.5	Ball	360	4.3	UL/CSA/TUV	37.6	12"	10.95	9.89	7.95	5.95
94625ED	Sunon	KD1212PMB1-6A	12	4.68 x 4.68 x 1.50	108	Ball	570	6.8	UL/CSA/TUV	42	12"	11.95	10.79	8.65	6.49
189851ED	Delta	WFB1212HE	12	4.68 x 4.68 x 1.50	108	Ball	490	5.9	UL/CSA/VDE/CE	41.3	12"	11.95	10.79	8.65	6.45
189886ED	NMB	3610KL-05W-B30	24	3.63 x 3.63 x 1.00	40.6	Ball	87	2.1	UL/CSA/VDE	34	12"	7.95	7.19	5.75	4.29
153411ED	Sunon	KD2412PMB2-6A	24	4.68 x 4.68 x 1.50	98	Ball	230	5.5	UL/CSA/TUV	36.5	12"	12.59	11.35	10.25	9.19

[1] **134586ED:** Blower type fan   [2] **16993ED/172460ED:** Replacement for the PC/XT computer power supply fan   [3] **185826ED:** Speed sensor
† **162739ED:** Temperature control 50˚C, 3 leads   * Manufacturers & specifications may vary

129 More @ www.Jameco.com/Fan

Heat Sinks, CPU Heat Sinks and Fans

TO-3 Heat Sink
- Traditional design
- Black anodized aluminum
- 4.8"L x 1.5"W x 1.3"H

Part No.	Product No.	Type	1	10	100
16512ED	DUDE4	TO-3	$2.95	$2.75	$2.49

TO-3 Heat Sink
- Uses less board space
- Ideal for 0.5" centering between boards
- Spacers not included
- 8 Watts
- 1.9'L x 1.4'W x 1.3"H

Part No.	Product No.	Type	1	10	100
151546ED	635-125B2	TO-3	$.99	$.89	$.67

TO-220 Heat Sink
Thermalloy
- Black anodized aluminum
- 0.75'L c 0.52"W x 0.38"H
- 2 Watts

Part No.	Product No.	Type	1	10	100
158051ED	THM6078	TO-220	$.39	$.35	$.29

Heat Sink Compound
Silicone-based grease that improves transfer of energy across the metal to metal interface between transistor or rectifier to heat sink. • Opaq. white

Part No.	Product No.	Weight	1	10	100
167249ED	THM250	2 oz.	$9.95	$8.99	$8.09

Heat Sink Mounting Kits
- TO-3 and TO-220 heat sink insulator assemblies
- 10 kits per pack

Part No.	Type	Description	1	10	100
34121ED	TO-220	5-piece kit	$3.95	$3.55	$3.19
34139ED	TO-3	12-piece kit	3.95	3.59	3.25

34121ED 34139ED **SALE**
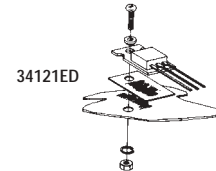
CPU Heat Sinks and Fans
- Excellent for avoiding CPU overheating during extended system on-time
- High efficiency cooling fans
- Easy installation – just snap it in

SALE

206244ED 196242ED 181278ED 118092ED

Part No.	Description	Size (H" x W" x D")	Agency Approvals	1	10	50	100
206244ED	Heat sink w/ dual fan slot (SECC 2)	5.25 x 1.95 x 1.30	CE	$12.95	$11.65	$10.49	$9.49
196242ED	Heat sink w/ fan for socket 7 (ATX)	2.26 x 2.12 x 1.07	UL/CE/TUV	9.95	8.95	7.95	6.95
181278ED	Heat sink w/ fan for socket 7 (ATX)	2.12 x 2.05 x 1.67	UL/CE/CSA	8.49	7.65	6.89	6.19
118092ED	Heat sink w/ fan for 586 CPU w/ snap	2.18 x 2.30 x 1.00	UL/CE/TUV	4.95	4.49	3.59	2.69

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Log on today! www.Jameco.com

Color Code Legend
SALE REFURBISHED CLOSEOUT

Scott Edwards Electronics, Inc.

Mini SSC II Module
(Serial Servo Controller)

- Controls 8 pulse-proportional servos
- Receives serially at 2400 or 9600 baud
- Module is addressable, thus allowing two units to share the same line to control a total of 16 servos
- Connections to serial input can be established using modular adapter from DB9 to RJ11 (P/N 114737ED, pg 64)
- Size (PCB): 1.9"L x 1.4"W • One-year warranty

Part No.	Description	1	10
151001ED	Serial servo controller module..	$49.95	$42.95

More Controllers @ www.Jameco.com

See our website for the complete selection.

Industrial Motion Controllers for Brush, Brushless and Stepper Motors

185009ED

All JR Kerr Automation Engineering controllers include integrated power amplifiers. Up to 32 controllers can be daisy-chained from a single full-duplex RS-485 port. See P/N 184971ED for RS-232 to RS-485 adapter.

185009ED: • For 3-phase brushless motors with hall effect sensors or conventional DC brush-type motors
- High current amplifier: 7A continuous, 10A peak, 12 to 48VDC supply

KAE

184971ED: • Lets you operate the controllers from any standard RS-232 port

184997ED: • Integrated indexer and driver for 2 or 4 phase stepper motors
- Full/half step bipolar chopper drive, 2A per phase, 7.5 to 46VDC supply
- Trapezoidal position profiling, velocity mode, up to 50,000 steps per second
- Limit switch inputs, general purpose outputs, step/dir outputs for use with external drivers

184971ED

Part No.	Description	Size (L" x W" x H")	1	10
185009ED	PIC-SERVO 3PH board for brush or brushless motors	3.1 x 3.1 x 1.0	$ 239.95	$215.95
184971ED	Z232-485 serial port adapter	3.1 x 2.1 x 0.5	59.95	53.95
184997ED	PIC-STEP motor control board	3.1 x 2.1 x 0.9	159.95	143.95
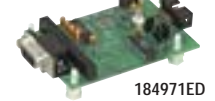
12VDC Continuous Tubular Push and Pull Solenoids

- 12VDC nominal voltage continuous
- Life expectancy: 2,000,000 cycles

SUN MAGNET

142463ED   163803ED   SALE

Part No.	Type	Coil Res. (±10%)	Power Consum.	Holding Force (lbs. @ 20°C)	Wires (in.)	Size (ins.) (L x Dia.)	Shaft Dia. (in.)	Wt. (lbs.)	Pricing 1	10	100
163803ED*	Push	42.8Ω	3.4W	0.75	9.0	2.00 x .60	0.156	0.10	$6.95	$6.29	$5.65
142463ED	Pull	36Ω	4.0W	0.63	2.0	1.63 x .43	0.150	0.04	5.95	5.35	4.79

* Manufactured by **Guardian** (A420-067074-1)

Bipolar and Unipolar Stepper Motors

- Excellent for precision control
- Can be operated in forward/reverse mode
- See website for compatible power supplies

SALE

117954ED (Fig. 1)   173180ED (Fig. 2)   213321ED (Fig. 3)

Part Number	Mfr. Cross Ref. No.	Fig.	Step Angle	No. of Phases	Drive System	Volt. (VDC)	Phase Resis. (Ohms)	Curr. (mA)	Phase Inductance (mH)	Detent Torque (g-cm)	Holding Torque (g-cm)	Mounting Hole Space Diagonal (in.)	Mounting Holes (in.)	Shaft Dia. (in.)	Shaft Length (in.)	Motor Dia. (in.)	Motor Height (in.)	Pricing 1	10	50
117954ED	LB82773-M1	1	7.5°	2	Bipolar	5	6	800	7	100	1080	2.60	1.95	0.250	0.75	2.25	1.00	$4.29	$3.89	$3.09
166705ED	PM42S-096	1	3.8°	4	Unipolar	12	84	140	16	60	450	1.95	0.13	0.117	0.40	1.66	1.64	3.95	3.39	2.55
164056ED	M82101-P1	1	7.5°	3	Unipolar	5	20	255	5	9	94	1.4	0.13	0.078	0.35	1.00	0.46	1.85	1.69	1.55
173180ED	30BYJ02AH[1]	2	.09°	4	Unipolar	12	200	60	49.5	400	400	1.42	0.14	0.194	0.36	1.18	.68	12.99	11.69	10.49
213321ED	35BY48-27	3	7.5°	4	Unipolar	12	15	800	68	90	460	1.96	0.13	0.078	0.25	1.38	8.30	12.95	11.69	10.49

[1]**173180ED:** Motor step angle 7.5°; Gear ratio 85.25:1

GBM   Bipolar and Unipolar Stepper Motors

- Bearing type: ball
- Dielectric strength: 500V, 50Hz/minute
- 18" lead wires
- Step angle: 1.8°
- Ambient temperature: -10°C to +55°C
- Insulation resistance: 100MΩ @ 500VDC
- Use P/N 161998ED, see website for shaft coupler

GBM is an ISO-9001 Certified Company

Red
A
Ā
Yellow
Orange B   Brown B
Bipolar (Fig. 1)
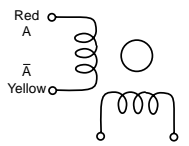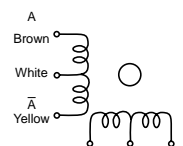
A
Brown
White
Ā
Yellow
Red B   Black   Blue B
Unipolar (Fig. 2)

NEMA 17 (155459ED)   NEMA 23 (162026ED)

Part Number	Product Number	Fig.	NEMA Form	No. of Phases	Drive System	Voltage (VDC)	Phase Resistance (Ohms)	Current (mA)	Phase Inductance (mH)	Detent Torque (g-cm)	Holding Torque (g-cm)	Mounting Hole Space Diagonal (in.)	Mounting Holes (in.)	Shaft Diameter (in.)	Shaft Length (in.)	Motor Diameter (in.)	Motor Height (in.)	Weight (lbs.)	Pricing 1	10	50
155459ED	42BYG023*	1	17	2	Bipolar	12	30	400	36	220	2,100	1.73	0.1	0.197	0.6	1.7	1.3	0.5	$17.95	$16.29	$14.59
162026ED	57BYG084	2	23	4	Unipolar	12	20	600	22	725	6,000	2.65	0.2	0.250	1.0	2.2	2.0	1.3	26.95	24.29	21.85

* Dual shaft

3-12 VDC Motors

star motor

TABUCHI MOTOR   JOHNSON ELECTRIC

154915ED   177498ED   181964ED   SALE

34 More Motors @ www.Jameco.com

Jameco also carries Vibrator and Geared Motors.

Part Number	Reference No.	Mfr. Cross Manufacturer	Nominal Voltage	Voltage Range (V)	Current (Amps)	RPM (max.)	Torque (g-cm)	Terminal Type	Shaft Dia.	Shaft Length	Size (D" x L")	Pricing 1	10	100
154915ED	ST-130-12240[1]	Star Motor	3VDC	1.5-3	0.070	5200	4.0	0.9"/solder	0.08"	0.32"	0.79 x 1.13	$1.29	$1.09	$.84
177498ED	RC280RA-2485	Mabuchi Motor	4.5VDC	3-14	0.150	10300	33.3	11"/solder	0.08"	0.43"	0.95 x 1.20	1.75	1.55	1.39
181964ED	NF203G12	Johnson Electric	12VDC	9-14	0.030	5000	—	.07"/solder	0.08"	0.57"	0.95 x 1.20	1.55	1.29	.99

[1]Use bushing P/N 162392ED, page 79

12 VDC Reversible Gear Head Motors

HSI ANG NENG ®

- Solder-type terminal
- High torque construction
- Oil bearing design
  for long service life
- Insulation resistance: 10MΩ
- Dielectric strength: 300VDC

167038ED   153437ED   155011ED
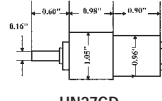
HN27GD Series   GH30GM Series   GH35GM Series
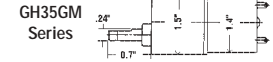
HN27GD Series

Part Number	Product Number	Rated Voltage	Operating Range (VDC)	No Load Current (mA)	No Load Speed (rpm)	Started Torque (kg-cm)	Gear Ratio	Gear Size Dia. x Lgth (in.)	Motor Size Dia. x Lgth (in.)	Shaft Size Dia. x Lgth (in.)	Pricing 1	Pricing 10	Pricing 50
167038ED	GH12-0953Y	12	4.5 – 24	45	14	1.2	188:1	1.0 x 0.9	1.1 x 1.0	.16 x .60	$16.49	$14.85	$13.39

GH30GM Series

Part Number	Product Number	Rated Voltage	Operating Range (VDC)	No Load Current (mA)	No Load Speed (rpm)	Started Torque (kg-cm)	Gear Ratio	Gear Size Dia. x Lgth (in.)	Motor Size Dia. x Lgth (in.)	Shaft Size Dia. x Lgth (in.)	Pricing 1	Pricing 10	Pricing 50
153437ED	GH12-1045Y	12	3.0 – 12	35	15	0.8	200:1	0.9 x 1.0	1.1 x 0.6	.16 x .70	$18.95	$17.09	$15.35
162190ED	GH12-1324Y225	12	4.5 – 12	65	225	0.7	30:1	1.0 x 0.9	1.1 x 0.6	.16 x .70	16.95	15.25	13.75

GH35GM Series

Part Number	Product Number	Rated Voltage	Operating Range (VDC)	No Load Current (mA)	No Load Speed (rpm)	Started Torque (kg-cm)	Gear Ratio	Gear Size Dia. x Lgth (in.)	Motor Size Dia. x Lgth (in.)	Shaft Size Dia. x Lgth (in.)	Pricing 1	Pricing 10	Pricing 50
155011ED	GH12-1926	12	4.5 – 12	55	2	15	3000:1	1.3 x 0.9	1.5 x 1.1	.23 x .90	$21.95	$19.79	$17.79
155820ED	GH12-1830Y-P	12	4.5 – 12	50	4.5	13	1000:1	1.3 x 0.9	1.5 x 1.0	.23 x .90	21.95	19.79	17.79
155838ED	GH12-1641T-L	12	3.0 – 12	65	20	10	270:1	1.3 x 0.9	1.5 x 0.8	.23 x .90	23.95	21.59	19.45
152910ED	GH12-1926Y	12	4.5 – 12	48	44	11.8	100:1	1.3 x 1.0	1.5 x 0.7	.24 x .90	21.95	19.75	17.75
151440ED	GH12-1632TI	12	4.5 – 12	75	69	11	100:1	1.3 x 0.9	1.5 x 0.7	.23 x .90	21.95	18.55	16.69
161381ED	GH12-1634T	12	4.5 – 12	111	200	3.6	30:1	1.3 x 0.9	1.4 x 0.7	.23 x .90	21.95	19.79	17.79
164785ED	GH12-1640Y	12	4.5 – 24	45	300	0.8	10:1	1.3 x 0.9	1.4 x 0.7	.23 x .90	23.95	21.59	19.45

Open-Frame Switching DC Power Supplies

SKYNET 10-Watt
- Output voltage:
  +5VDC @ 2A
- Input voltage:
  115/230VAC @ 50-60Hz
- Input connector: 5-position
  3-pin 0.156" male locking headers
- Mating input conn.: P/N 104723ED (see web)
- Output connector: 2-position
  0.156" male locking headers
- Mating output connector: P/N 176743ED (web)

+ ■ +5VDC @ 2A
- ■ Ground

Part No.	Product No.	1	10	50
184866ED	SNP-0502-B	$13.49	$12.15	$10.95
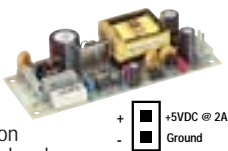
SUPER MAC 24.5-Watt
SALE
- Output voltage:
  +5V @ 2.5A
  +12V @ 1A
- Input voltage:
  100-240VAC @ 50-60Hz
  2A @ 250V fuse on board
- Mating input conn.: P/N 104432ED
  (3-position housing connector, see web)
- Mating output connector: P/N 104731ED
  (6-position housing connector, pg 46)

■ 12VDC @ 1A
■ Ground
■ Ground
■ 5VDC @ 2.5A
■ 5VDC @ 2.5A
■ No Connection

Part No.	Product No.	1	10	25
166967ED	U002512010	$12.95	$11.05	$8.29

45-Watt Triple Outlet
- Output voltage:
  +5VDC @ 3.0A
  +12VDC @ 2.0A
  -12VDC @ 0.3A
- Input voltage:
  90-264VAC @ 47-440Hz; 127-370VDC
- Mating input conn.: P/N 104432ED
  (3-position housing connector, see web)
- Mating output connector: P/N 104731ED
  (6-position housing connector, pg 46)

Part No.	Product No.	1	10	25
88401ED	U002512010	$37.95	$22.99	$19.99

10 to 60-Watt Switching Power Supplies

SALE

Part Number	Mfr.	Product Number	Power (W)	Output (VDC/A)	Input (VAC @ Hz)	Input Connector (Mating Connector)	Output Connector (Mating Connector)	Certification	Size L" x W" x H"	Weight (lbs.)	Pricing 1	Pricing 10	Pricing 50
184866ED	Skynet	SNP-0502-B*	10	+5/2	115/230 @ 50-60	.156" M header (P/N 104723ED, see web)	.156" M header (P/N 176743ED, see web)	UL/CUL/TUV	4.4 x 1.6 x 0.8	0.2	$13.49	$12.15	$10.95
166967ED	Super Mac	U002512010*	24.5	+5/2.5, +12/1	100-240 @ 50-60	.156" M header (P/N 104432ED, see web)	.156" M header (P/N 104731ED, pg 46)	UL/CSA/TUV	3.7 x 2.5 x 1.2	0.4	12.95	11.05	8.29
190086ED	Artesyn	NFS407608	40	+5/3, +12/2, -12/0.35	85-264 @ 47-440	.156" M header (P/N 104432ED, see web)	.156" M header (P/N 104731ED, pg 46)	UL/CSA/VDE/CE	5.0 x 3.0 x 1.2	0.5	50.95	45.89	41.29
163985ED	Samsung	PSPL430201A	43	+5/5, +12/1.5	100-120 @ 50-60	3 prong receptacle (P/N 38050ED, see pg 37)	(P/N 42067ED, 114930ED P/N 78326ED, pg 63)	UL/CUL	6.1 x 2.1 x 1.0	0.6	14.95	12.75	9.59
88401ED	Mean Well	PT45B*	45	+5/3, +12/2, -12/0.3	90-264 @ 47-440	.156" M header (P/N 104432ED, see web)	156" M header (P/N 104731ED, pg 46)	UL/CUL/TUV/CE	5.0 x 3.0 x 1.6	0.5	37.95	22.99	19.99
169050ED	Autec	UPS50-2002	51	+5/3, +12/3,	90-264 @ 47-440	.156" M header (P/N 104432ED, see web)	156" M header P/N 104715ED, pg 46)	UL/CSA/TUV	5.0 x 3.0 x 1.9	0.7	9.95	8.49	6.39
171731ED	Delta	DPS-60MPB	60	+3.3/8, +5/9, +12/1, -12/0.2	90-270 @ 47-63	3 prong receptacle (P/N 38050ED, see pg 37)	.156" M header (12-pin housing incl.)	UL/CUL/TUV	5.8 x 3.3 x 1.4	1.0	7.95	6.79	5.09

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98 More Power Supplies @ www.Jameco.com/PS
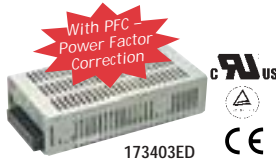
Special Order Any Mean Well Power Supply — **Mean Well Authorized Distributor** — **Mean Well is an ISO-9001 Certified Company**

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65-Watt Dual Output

• Input voltage: 90-264VAC @ 47-440Hz; 120-370VDC
• DC voltage adjustment: CH1: +10, -5%
• Mating input connector: P/N 104432ED, see web
• Mating output connector: P/N 104731ED, pg 46
• Size: 5.0"L x 3.0"W x 1.5"H

Part No.	Product No.	Watts	Output	1	10	25
194896ED	PD65B	65.5	5VDC @ 3.5A 24VDC @ 2A	$35.95	$23.99	$20.99

65-Watt Single Output

• Input voltage: 90-264VAC @ 47-440Hz;127-370VAC
• Mating connectors: P/N 104432ED
  (see web) & P/N 104731ED, pg 46
• No minimum load required
• Size: 5.0"L x 3.0"W x 1.6"H • Weight: 0.6 lbs.

Part No.	Product No.	Watts	Output	1	10	25
148638ED	PS-65-12	62.4	12VDC @ 5.2A	$33.95	$22.99	$19.99

25-Watt Single Output

• Input voltage: 85-264VAC; 120-370VDC
• Full input range (no changes required
  for 110 or 220VAC operation)
• Mating input/output connector:
  P/N 103587ED, spade terminal (see web)
• No minimum load required
• Size: 3.9"L x 3.8"W x 1.4"H • Weight: 0.8 lbs.

123254ED

Part No.	Product No.	Watts	Output	1	10	25
123246ED	S-25-5	25.0	5VDC @ 5.0A	$43.95	$27.99	$23.99
123254ED	S-25-12	25.2	12VDC @ 2.1A	43.95	27.99	23.99
123271ED	S-25-24	26.4	24VDC @ 1.1A	43.95	27.99	23.99

40-Watt Single Output

• Input voltage: 85-264VAC; 120-370VDC
• Full input range (no changes required
  for 110 or 220VAC operation)
• Mating input/output connector:
  P/N 103587ED, spade terminal (see web)
• No minimum load required
• Size: 5.1"L x 3.9"W x 1.5"H
• Weight: 1.0 lb.
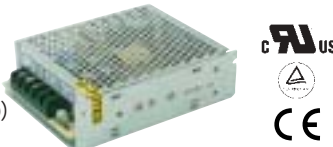
Part No.	Product No.	Watts	Output	1	10	25
123297ED	S-40-12	42	12VDC @ 3.5A	$49.95	$31.99	$27.99

60-Watt Single Output

• Input voltage: 85-264VAC; 120-370VDC
• Full input range (no changes required
  for 110 or 220VAC operation)
• Mating input/output connector:
  P/N 103587ED, spade terminal (see web)
• No minimum load required
• Size: 6.3"L x 3.8"W x 1.5"H
• Weight: 1.2 lbs.

123351ED

Part No.	Product No.	Watts	Output	1	10	25
123334ED	S-60-12	60	12VDC @ 5A	$57.95	$35.99	$30.99
123342ED	S-60-15	60	15VDC @ 4A	57.95	35.99	30.99
123351ED	S-60-24	60	24VDC @ 2.5A	57.95	35.99	30.99

60-Watt Dual Output

• Input voltage: 85-264VAC; 120-370VDC
• Full input range (no changes required
  for 110 or 220VAC operation)
• Mating input/output connector:
  P/N 103587ED, spade terminal (see web)
• Min. load: all outputs at 10% of rated load

123457ED

• Weight: 1.2 lbs.
• Size: 6.3"L x 3.8"W x 1.5"H

Part No.	Product No.	Watts	Output	1	10	25
123457ED	D-60A	56	5VDC @ 4A, 12VDC @ 3A	$60.95	$37.99	$32.99
123465ED	D-60B	58	5VDC @ 3A, 24VDC @ 1.8A	60.95	37.99	32.99

60-Watt Quad Output

• Input voltage: 85-264VAC @ 47-63Hz;120-370VDC
• Line regulation: 0.5%-1.0%
• Ripple and noise: 100-120mV peak to peak
• DC voltage adjustment: CH 1: +10, -5%
• Minimum load: all output at 10% rated load
• Mating input/output connector: P/N 103587ED, spade terminal (see web)
• Size: 6.3"L x 3.9"W x 1.5"H • Weight: 1.2 lbs.
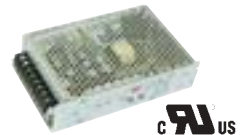
Part No.	Product No.	Watts	Output	1	10	25
147045ED	Q60B	60	+5VDC @ 5.5A; -5VDC @ 0.5A +12VDC @ 2A; -12VDC @ 0.5A	$65.95	$40.99	$35.99

75-Watt Single Output

• Input range: 85-264VAC @ 47-63Hz; 120-370VDC
• Ripple and noise: 80mV -100mV peak to peak
• DC voltage adjustment: +10%,-5%
• Soft start-circuit, limiting AC surge current
• Line regulation: ±5%
• Mating input/output conn.: P/N 103587ED, spade terminal (see web)
• Size: 7.0"L x 3.9"W x 1.3"H • Weight: 1.2 lbs.

With PFC – Power Factor Correction
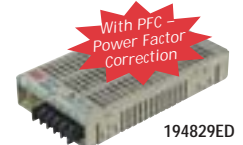
194829ED

Part No.	Product No.	Watts	Output	1	10	25
194829ED	SP75-5	75	5VDC @ 15A	$75.95	$55.49	$48.99
194837ED	SP75-12	75	12VDC @ 6.3A	75.95	55.49	48.99

120-Watt Quad Output

• Input voltage: 88-132VAC or 176-264VAC @ 47-63Hz
• Mating input/output connector:
  P/N 103587ED, spade terminal (see web)
• Switch selectable input
• Minimum load: all outputs at 10% of rated load
• Size: 8.0" x 4.4"W x 2.0"H • Weight: 2.0 lbs.

Part No.	Product No.	Watts	Output	1	10	25
132370ED	Q-120D	124	+5VDC @ 8A; +24VDC @ 2A +12VDC @ 2A; -12VDC @ 1A	$82.95	$57.99	$50.99

150-Watt Single Output

• Input voltage: 88-132VAC/176-264VAC switch selected
• Mating input/output connector:
  P/N 103587ED, spade terminal (see web)
• Switch selectable input
• No minimum load required
• Size: 7.8"L x 4.3"W x 2.0"H • Weight: 1.8 lbs.

9V also available!

123449ED

Part No.	Product No.	Watts	Output	1	10	25
123431ED	S-150-15	150	15VDC @ 10A	$76.95	$46.99	$40.99
123449ED	S-150-24	156	24VDC @ 6.5A	76.95	46.99	40.99
167345ED	S-150-48	154	48VDC @ 3.2A	76.95	46.99	40.99

MTBF Table

Product Number	MTBF (Hours) @ Full Load/40˚C	Product Number	MTBF (Hours) @ Full Load/40˚C	Product Number	MTBF (Hours) @ Full Load/40˚C
PD-65	288,000	Q-60	284,000	S-240	179,000
PS-65	300,000	SP-75	208,800	SP-300	168,000
S-25	330,000	Q-120	261,000	S-320	188,000
S-40	314,000	S-150	286,000	SP-500	133,000
S-60	316,000	SP-150	191,000	PSP-500	130,000
D-60	301,000	SP-200	183,000		

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Power Supplies are on our website.**

150-Watt Single Output

With PFC – Power Factor Correction

173403ED

• Input voltage: 85-264VAC @ 47-63Hz
• PFC: 98% @ 115VAC; 95% @ 230VAC
• Overload, overvoltage & short circuit protection
• Mating input/output connector:
  P/N 103587ED, spade terminal (see web)
• No minimum load requirement   • MTBF table, pg 34
• 100% full load burn-in test   • Operating temp.: 0-50˚C
• Size: 7.8"L x 3.9"W x 2.0"H   • Weight: 1.7 lbs.

Part No.	Product No.	Watts	Output	1	10	25
173411ED	SP-150-15	150	15VDC @ 10A	$97.95	$69.99	$61.99
173403ED	SP-150-24	150	24VDC @ 6.3A	97.95	69.99	61.99

200-Watt Single Output

With PFC – Power Factor Correction

• Input voltage: 85-264VAC @
  47-63Hz; 120-370VDC
• Line regulation: ±5%   • MTBF table, pg 34
• Ripple & noise: 100mV – 150mV peak to peak
• DC voltage adjustment: CH1: +10, -5%
• Soft-start circuit, limiting AC surge current • Size: 7.8"L x 3.9"W x 2.0"H
• Mating input/output connector: P/N 103587ED, spade terminal (see web) • Wt.: 1.9 lbs.

Part No.	Product No.	Watts	Output	1	10	25
194773ED	SP-200-12	200.4	12VDC @ 16.7A	$109.95	$77.99	$67.99

240-Watt Single Output

7.5V and 30V also available!

• Input voltage: 88-132VAC/
  176-264VAC automatic switching
• Mating input/output connector:
  P/N 103587ED, spade terminal (see web)
• Automatic fan controls internal temperature
• Size: 8.0"L x 3.7"W x 2.6"H   • Weight: 2.5 lbs.
                                    • MTBF table, pg 34

Part No.	Product No.	Watts	Output	1	10	25
137656ED	S-240-24	240	24VDC @ 10A	$103.95	$91.99	$80.99

288 to 300-Watt Single Output

137390ED

With PFC – Power Factor Correction

• Input voltage: 100 to 240VAC
• PFC: 98% @ 115VAC; 95% @ 230VAC
• Mating input/output connector:
  P/N 103587ED, spade terminal (see web)
• Automatic fan controls internal temperature
• Over-temperature protected   • Size: 9.0"L x 4.5"W x 2.0"H
• Weight: 2.6 lbs.   • MTBF table, pg 34
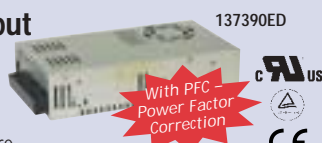
Part No.	Product No.	Watts	Output	1	10	25
137390ED	SP-300-12	288	12VDC @ 24A	$185.95	$123.99	$109.99
137402ED	SP-300-24	300	24VDC @ 12.5A	185.95	123.99	109.99

320-Watt Single Output

SALE

• Input voltage:
  88-132VAC/176-264VAC
• Mating input/output connector:
  P/N 103587ED, spade terminal (see web)
• Automatic on/off cooling fan   • MTBF table, pg 34
• Size: 8.5"L x 4.5"W x 2.0"H   • Weight: 2.5 lbs.

Part No.	Product No.	Watts	Output	1	10	25
196656ED	S-320-24	320	24VDC @ 12.5A	$124.95	$83.99	$73.99

480-Watt Single Output

With PFC – Power Factor Correction

• Input voltage: 100-240VAC @ 50/60Hz
• Built-in remote control
• Mating input/output connector:
  P/N 103587ED, spade terminal (see web)
• PFC: 98% @ 115VAC; 95% @ 230VAC
• Short circuit, overload, over voltage and over temperature protection
• Cooling fan (temperature sensing)   • Remote voltage sensing
• MTBF table pg 34   • Size: 7.3"L x 4.8"W x 3.8"H   • Weight: 4.2 lbs.

Part No.	Product No.	Watts	Output	1	10	25
147053ED	SP500-24	480	24VDC @ 20A	$259.95	$173.99	$152.99

500-Watt Single Output
With Parallel Operation

With PFC – Power Factor Correction

190713ED

• PFC: 98% @ 115VAC; 95% @ 230VAC
• Input voltage: 90-264VAC @ 47-63Hz; 127-370VDC
• Ripple and noise: 200mV – 240mV peak to peak
• Parallel/series operation can reach 3KW
• Current sharing/remote control/remote sense
• Line regulation: ±2%   • MTBF table pg 34
• Mating input/output connector: P/N 103587ED, spade terminal (see web)
• Size: 11.0"L x 5.0"W x 2.5"H   • Weight: 5.5 lbs.

Part No.	Product No.	Watts	Output	1	10	25
190713ED	PSP-500-12	498	12VDC @ 41.5A	$261.95	$210.99	$196.99
190721ED	PSP-500-24	500	24VDC @ 20.8A	261.95	210.99	196.99

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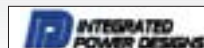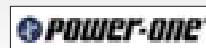
GlobTek 150-Watt
24VDC @ 6.5 Amps

• Output voltage:
  +24VDC @ 6.5A
• Input voltage:
  115/230VAC/
  50-60Hz
• 150 watts

SALE

Part No.	Product No.	1	10	25
199515ED	RT-3S150-24	$69.95	$59.49	$44.65

Power One 500-Watt

• Output voltage:
  +48VDC @ 10.4A
• Input voltage:
  85-264VAC @ 47-63Hz
• Input/output
  connectors:
  screw terminals

SALE

Part No.	Product No.	1	10	25
202913ED	141688-003	$69.95	$62.99	$56.69

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SALE
150 & 500-Watt Switching Power Supplies

Part Number	Manufacturer	Product Number	Watts (W)	Output (VDC/A)	Input (VAC @ Hz)	Input Connector/Cord	Output Connector	Certification	Size L" x W" x H"	Wt. (lbs.)	Pricing 1	10	50
199515ED	GlobTek	RT-3S150-24*	150	+24/6.5	115/230 @ 50-60	Screw terminal (P/N 103587ED, see web)	Screw terminal (P/N 103587ED, see web)	UL/CE	7.9 x 4.3 x 1.9	1.8	$69.95	$59.49	$44.65
202913ED	Power One	PFC-500-1048*	500	+48/10.4	85-264 @ 47-63	Screw terminal (3-position)	Screw terminal (3-position)	UL/CSA/TUV/CE	9.0 x 5.0 x 2.6	3.7	69.95	62.99	56.69

* See photo above

276-Watt Precision Regulated Linear Power Supply

- Output current: 20A
- Illuminated rocker switch
- Short circuit protection
- Output terminals: see web for mating cigarette plugs and page 45 for mating banana terminal plugs
- Fuse protected   • Output: 13.8 VDC
- Input voltage: 115VAC @ 60Hz

Includes: heavy duty 5'8" 3-prong power cord

Part No.	Model No.	Output Terminals	Size (L" x W" x H")	Wt. (lbs.)	1	10	25
138675ED	52-192012	Banana	10.0 x 7.8 x 4.4	15.9	$109.95	$99.95	$89.95

25-Watt DC-to-DC Converters

- Input voltage: 9.2VDC-18VDC
- Built-in EMI filter, low ripple noise
- Size: 3.9"L x 3.9"W x 1.5"H
- Voltage output adjustable
- Short-circuit, over voltage and overload protection
- Input/output connector: screw terminals
- Mating connectors: P/N 103587ED or P/N 103595ED, see web

175812ED

Part No.	Product No.	Output	1	10	25
175804ED	SD25A12	12V @ 2.1A	$40.95	$30.99	$28.99
175812ED	SD25A24	24V @ 1.1A	40.95	30.99	28.99

3 and 15-Watt DC-to-DC Converters

- Short-circuit/overcurrent protection
- One-year warranty

Mean Well is an ISO-9001 Certified Company

155918ED

Fig. 1

+Vin—O23   2O—-Vin
+Vin—O22   3O—-Vin
Common—O16   9O—Common
NC—O15   10O—NC
+Vout—O14   11O—-Vout
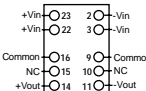
+Vin—O1   3O—+Vout
-Vin—O2   4O—NC
                5O—GND
Fig. 2
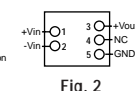
Part Number	Product Number	Fig.	Power (W)	Input Voltage Range (VDC)	Output Voltage (VDC)	Output Current (mA)	Ripple p-p (mV)	Pins	Size L" x W" x H"	Pricing 1	10	25
155918ED	DCW03A05	1	3	9-18	+5/-5	300	100	8	1.2 x 0.7 x 0.5	$20.95	$18.89	$16.99
161701ED	DCW03A12	1	3	9-18	+12/-12	125	100	8	1.3 x 0.8 x 0.5	20.95	18.89	16.99
155707ED	SKE15A12	2	15	9-18	+12	1,250	60	4	2.0 x 2.0 x 0.4	34.95	31.19	28.15
155694ED	SKE15A24	2	15	9-18	+24	625	80	4	2.0 x 2.0 x 0.4	34.95	31.49	28.15

21 and 125 Watt DC-to-DC Converters

- Over temperature, overvoltage and short-circuit protection

SALE **ASTEC**

109276ED   **188197ED**

125 More Converters @ www.Jameco.com

Part Number	Product Number	Power (W)	Input Voltage	Input Range (VDC)	Output Voltage (VDC)	Output Current (A)	Ripple p-p (mV)	Pins	Size L" x W" x H"	Pricing 1	10	50
109276ED	AA9090A	21	16	0-20	+5.1/+12.6/-26	3.75/0.1/.04	500/100/200	32	3.6 x 1.6 x 0.8	$6.95	$5.95	$4.75
188197ED	AK60C048L050F20G	125	48	36-75	15	20	150	9	2.3 x 2.4 x 0.5	19.95	17.99	16.19

Power Transformers

Split-Bobbin Power Transformers

Non-concentrically wound with primaries and secondaries side-by-side providing low capacitive coupling.
- Primary: 115/230VAC, 50-60Hz   • PC terminal pin spacing for accurate placement
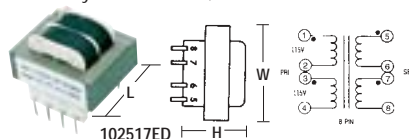
102517ED

Part Number	Mfr. Cross Ref. No.	Triad Cross	Input Voltage	VA Cap	Individual Output	Parallel Output	Series Output	Dimensions L"	W"	H"	Wt. (lbs.)	Pricing 1	10
102517ED	XFR1602SB*	FS16150	115/230	2.4	8V @ .15A	8V @ .30A	16VCT @ .15A	1.17	1.38	1.20	0.3	$6.95	$6.25
102592ED	XFR2405SB	FS24500	115/230	12.0	12V @ .50A	12V @ 1.0A	24VCT @ .50A	1.58	1.90	1.46	0.7	8.79	7.95

* Manufacturer and Product number may vary

Quick Connect Power Transformer

- Quick connect transformers are bobbin wound for smaller size and reduced electrostatic shielding requirements
- Terminals: quick connect, solder   • Input voltage: 115/230VAC, 50-60Hz

Part Number	Mfr. Cross Ref. No.	Triad Cross	Input Voltage	Output Voltage	VA Cap	Size of Connect	Dimensions L"	W"	H"	Weight (lbs.)	Pricing 1	10
101864ED	XFR2424Q	FD724	115/230VAC	24VCT @ 2.4A	57.6	0.187"	1.87	2.70	2.25	1.7	$11.95	$10.79
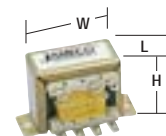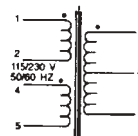
115VAC and 115/230VAC Power Transformers

Power transformers have both single and dual voltage input and center tapped outputs. This makes them the perfect choice for power supply design or for use in transformer, rectifier, and filter circuits.
- Primary: 115VAC or 115/230VAC, 50-60Hz   * Center tap

115VAC 50-60Hz **Fig.1**
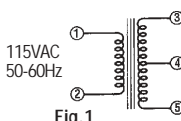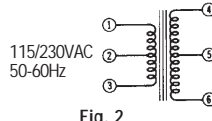
115/230VAC 50-60Hz **Fig. 2**
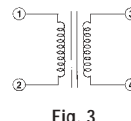
Fig. 3
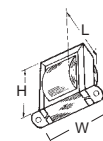
29225ED

Part Number	Mfr. Cross Ref. No.	Triad Cross	Primary Color Code			VA Cap	Secondary Voltage	Color Code			Lead Type	Fig.	Dimensions L"	W"	H"	Wt. (lbs.)	Pricing 1	10	100
102162ED	XFR6102	F314X	Black	Yellow*	Red	7.6	6.3VCT @ 1.2A	White	Black*	White	Wire	2	1.56	1.96	1.67	0.8	$8.49	$7.65	$6.89
102111ED	XFR2410	F346X	Black	Yellow*	Red	24.0	24VCT @ 1A	White	Black*	White	Wire	2	2.22	2.33	1.97	1.5	8.95	8.09	7.25
29225ED	XFR122	F44X	Yellow	—	Yellow	25.2	12.6VCT @ 2A	Blue	Red*	Black	Wire	1	2.12	2.33	1.96	1.5	9.95	8.99	8.09
112512ED	XFR242N	F229X	Black	—	Black	48.0	24VAC @ 2A	White	—	White	Wire	3	1.75	2.75	2.25	1.8	9.79	8.85	7.95
102120ED	XFR124	F181U	Black	—	Black	50.4	12.6VCT @ 4A	White	Black*	White	Wire	1	2.53	3.08	2.61	2.7	12.95	11.69	10.49

120VAC to 120VAC Isolated Transformer

300VA
- Input voltage: 120VAC @ 60Hz
- Input connector: 5.5' cord with 2-prong plug
- Output voltage: 120VAC @ 2.5A (isolated)
- Size: 4.2"H x 3.2"W x 4.6"D
- Weight: 7.0 lbs.

Part No.	Mfr. Cross Ref. No.	1	10	100
181315ED	ITR300	$39.95	$35.99	$32.39

More Variable Transformers @ www.Jameco.com

AEEC 110VAC Variable AC Transformers

- Input voltage: 110VAC @ 60 Hz
- Power: 500 and 2000VA
- Output voltage: 0 to 130VAC
- Output analog voltmeter
- Input conn.: 3-prong plug w/ 5' cord
- Output conn.: 3-prong outlet type
- Lighted on/off power switch

169640ED: • 5A @ 250V fuse
- Size: 8.3"L x 6.5"W x 7.0"H
- Weight: 15.6 lbs.

169658ED: • 20A @ 250V fuse
- Size: 9.8"L x 8.0"W x 7.0"H
- Weight: 26.5 lbs.

169640ED

169658ED

Part No.	Description	1	10	50
169640ED	500VA transformer	$84.95	$76.49	$68.85
169658ED	2000VA transformer	124.95	112.49	101.25

110/220VAC Variable AC Transformers

- Input: 110VAC or 220VAC
- Power: 500-2000VA
- Output: 0-240VAC
- Banana/screw input terminals
- Universal US/European output plugs
- Lighted on/off power switch

121275ED

Part No.	Fuse	Size (L" x W" x H")	Wt. (lbs.)
121275ED	3A/250V (P/N 69438ED)	5.3 x 7.3 x 7.0	10.4
129007ED	5A/250V (P/N 10401ED)	9.4 x 6.5 x 7.7	14.8
152581ED	10A/250V (P/N 69462ED)	9.0 x 7.0 x 7.7	19.8

Part No.	Description	1	10	50
121275ED	500VA transformer	$79.95	$69.95	$62.95
129007ED	1000VA transformer ..	164.95	148.49	133.65
152581ED	2000VA transformer ..	174.95	158.45	139.95

Power Entry Filters
- Frequency: 50/60Hz

SALE

Fig.1 (146907ED)

40601ED
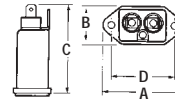
Fig. 2 (Fast-on Terminals)
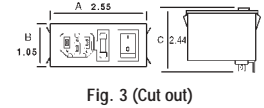
Fig. 3 (Cut out)

Part Number	Mfr. Cross Ref. No.	Corcom Cross	Description	Fig.	(Amps)	Current (VAC)	Voltage Terminals	Agency Approvals	Terminal Size	Dimension (inches)				Pricing			
										A	B	C	D	1	10	100	500
146907ED	03DENG3B*		Power entry filter (snap-in)	1	3	250	fast-on	UL/CSA/VDE	.25"	1.25	0.95	2.23	N/A	$4.95	$4.49	$3.59	$2.69
40601ED	03AE1*	3EF1F	Power entry filter, straight (flanged)	2	3	250	fast-on	UL/CSA/VDE	.25"	1.97	0.90	2.16	1.58	7.49	6.69	5.99	5.39
212206ED	A6-12S10E		Pwr. entry filter, fused w/switch (snap-in)	3	6	250	fast-on	UL/CSA/VDE	.25"	2.55	1.05	2.44	N/A	9.95	8.95	7.95	6.95

* Manufacturer may vary

Computer and Power Cords

SALE

- Molded connectors
- Excellent resistance to jacket abrasion
- Temperature: -20°C to +60°C
- Voltage rating: 300 volts

AWG	Volts	Amps	VA
18	125	10	1250
16	125	12	1500
14	125	15	1875
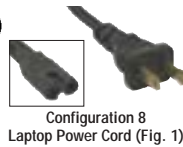
Configuration 8 Laptop Power Cord (Fig. 1)
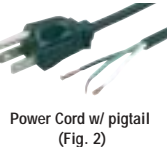
Power Cord w/ pigtail (Fig. 2)

RFI Power Cord (Fig. 3)
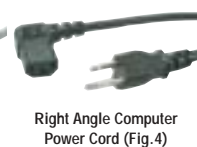
Right Angle Computer Power Cord (Fig.4)

Hospital Grade Cord (Fig. 5)

Part Number	Mfr. Cross Reference No.	Description	Weight (lbs.)	Agency Approvals	Plug Fig.	Length	Color	AWG	Cord Type*	Pricing			
										1	10	100	250
189587ED	VW-1	2-conductor "8" style power cord for laptops and power supplies	.30	UL/CSA	1	6'	Black	18/2	SPT-2	$2.95	$2.49	$2.15	$1.79
37997ED	17236	3-conductor power cord with pigtail	.30	UL/CSA	2	6'	Black	18/3	SVT	2.79	2.32	2.11	1.99
38041ED	17249	3-conductor detachable power supply cord	.37	UL/CSA	3	6'	Beige	18/3	SVT	3.49	3.15	2.79	2.49
38050ED	17250	3-conductor detachable power supply cord	.36	UL/CSA	3	6'	Black	18/3	SVT	3.75	3.25	2.75	2.49
125541ED	17504	3-conductor detachable power supply cord	.71	UL/CSA	3	6' 7"	Black	14/3	SJT	4.95	4.45	3.55	2.69
38076ED	17250R	3-conductor detachable right angle power supply cord	.54	UL/CSA	4	6'	Black	18/3	SVT	3.49	3.15	2.85	2.55
115078ED	17006	3-conductor power cord w/ hospital grade male (green dot)	.84	UL/CSA	5	10'	Black	16/3	SJT	8.95	8.09	7.25	6.55

* Thermoplastic Cord Jacket Type: Light duty: SPT-2 (Flat): Junior duty;   SVT (Round): Light service;   SJT (Round): Junior service

International Step-Up/Step-Down Transformers

- Wide selection to meet your power requirements

Fig. 1

Fig. 2

Fig. 3
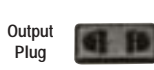
Part Number	Mfr. Cross Ref. No.*	Fig.	Primary Voltage	Secondary Voltage	Power (VA)	Dimensions			Wt. (lbs.)	Pricing		
						H"	W"	D"		1	10	100
99573ED	AC110V50	1/A	220VAC	110VAC	50	2.50	1.63	1.33	0.7	$9.95	$8.99	$8.09
85016ED	AC110V300	3/A	220VAC	110VAC	300	3.50	3.05	3.95	4.8	27.95	24.95	22.49
111851ED	AC110V500	2/A	220VAC	110VAC	500	3.99	3.60	4.84	8.5	34.95	31.49	28.95
142906ED	AC110V1500	2/A	220VAC	110VAC	1500	5.25	4.50	5.75	15.2	79.95	71.95	64.95
85008ED	AC220V300	3/B	110VAC	220VAC	300	3.50	3.05	3.95	4.8	27.95	24.95	22.49

* Manufacturer may vary

Fig. A Plug

Fig. B Plug

Output Plug

43 More Power Cords @ www.Jameco.com
Look for Jameco's complete selection of International Power Cords.

Color Code Legend
SALE REFURBISHED CLOSEOUT

JAMECO

Color Code Legend
SALE REFURBISHED CLOSEOUT

AC/DC Table-Top Power Supplies

- Regulated and unregulated outputs (see "Output Plug")
- Input voltage: **Regulated:** 100-240VAC @ 50-60Hz
  Unregulated: 120VAC @ 50-60Hz

Power cords – see page 37
Stripped Female

Polarity 1 (+)—(•)—(−) (center negative)
Polarity 2 (−)—(•)—(+) (center positive)

136565ED   155213ED   139096ED

Part Number	Mfr. Cross Reference No. ▲	Output			Output Plug ID x OD/Plug Type/Polarity	Power Indicator	Color	Size (L" x W" x H")	Cord (DC/AC)	Weight (lbs.)	Agency Approvals	Pricing		
		Volts (VDC)	Current (A)	Watts (W)								1	10	50
196218ED	GT210891005T3	5	2.0	10	2.1mm x 5.5mm female **2** (regulated)	No	Black	3.4 x 1.9 x 1.3	6'/ [1]	0.4	UL/CSA/TUV/CE	$19.95	$17.95	$16.15
169121ED	AD740U1050	5	4.0	20	2.5mm x 5.5mm female **2** (regulated)	No	Black	4.1 x 2.6 x 1.6	4'/ [1]	1.4	UL/CUL/TUV/CE	24.95	22.49	19.95
136565ED	DDC1210P†	12	1.0	12	Stripped & Tinned	No	Black	3.2 x 2.2 x 1.9	6'/6'	1.2	—	13.95	12.59	11.39
140880ED	DC1215ST†	12	1.5	18	Stripped & Tinned	No	Black	3.1 x 2.1 x 1.9	6'/6'	1.5	UL	10.95	9.95	8.95
216531ED	KWM12F-P2MU	12	1.5	18	2.5mm x 5.5mm female **2** (regulated)	No	Black	4.0 x 1.9 x 1.5	6'/ [1]	0.4	UL/CUL/TUV/CE	26.95	24.25	21.85
143714ED	DC1220F1†	12	2.0	24	2.1mm x 5.5mm female **2**	No	Black	3.8 x 2.8 x 2.3	6'/6'	2.2	—	14.95	13.49	12.19
155213ED	P40A-3P2JU	12	3.3	40	2.1mm x 5.5mm female **2** (regulated)	Yes	Black	5.5 x 2.3 x 1.5	6'/6'	0.7	UL/CUL/TUV	34.95	31.49	27.95
155230ED	SPU50-3	12	5.0	60	2.1mm x 5.5mm female **2** (regulated)	Yes	Black	5.6 x 2.9 x 1.5	6'/6'	1.3	UL/CSA/TUV	49.95	44.95	39.95
169076ED	808050-00	20	2.5	50	2.5mm x 5.5mm female **2** (regulated)	Yes	Black	6.7 x 3.3 x 2.3	6'/ [1]	1.4	UL/CSA/TUV	29.95	26.99	21.59
139096ED	DC2412F1†	24	1.2	29	2.1mm x 5.5mm female **2**	No	Black	4.4 x 3.1 x 2.6	6'/6'	2.5	—	14.95	13.49	12.15
181884ED	P40A6P2J	24	1.66	40	2.1mm x 5.5mm female **2** (regulated)	Yes	Black	4.1 x 2.6 x 1.4	6'/6'	0.7	UL/TUV/CE	33.95	30.59	27.55
161605ED	SPU50-6	24	2.5	60	2.1mm x 5.5mm female **2** (regulated)	Yes	Black	5.6 x 2.9 x 1.6	1'9'/6'	1.3	UL/CSA/TUV	44.95	39.95	35.95
173665ED	DND-3005†	30	0.5	15	2.5mm x 5.5mm female **2** (regulated)	No	Black	8.3 x 2.5 x 2.2	5'9'/3'2'	1.4	UL/CUL	13.29	11.99	9.59
172064ED	SPU50-9	48	1.25	50	2.1mm x 5.5mm female **2** (regulated)	Yes	Black	5.6 x 2.9 x 1.7	6'/6'	1.3	UL/CSA/TUV	36.95	33.29	29.95

† 120VAC input only   * Has on/off switch   ▲ Manufacturer may vary   [1] Use P/N 38050ED (pg 37) power cord

MOTOROLA 5.6-Watt Linear Wall Regulated DC Power Supply

- Output voltage:
  +5VDC @ 500mA
  +12VDC @ 130mA
  -12VDC @ 130mA
- Input voltage:
  120VAC @ 60Hz
- Input conn.: 3-prong AC wall plug

NC   +5VDC
NC   GND
-12VDC   +12VDC
NC

SALE

Part No.	Product No.	1	10	50
154624ED	5712-305-4C3E	$11.49	$10.39	$8.29
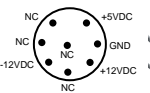
ELPAC 72-Watt Table-Top Switching Power Supply

- Output voltage:
  +12VDC @ 6A
- Input voltage:
  95-250VDC @ 47-63Hz
- Input: 6' power cord (included)
- Mating output connector: 5-pin DIN female connector, P/N 180873ED, see web

GND   +12VDC @ 6A
GND   +12VDC @ 6A
GND

Part No.	Product No.	1	10	50
182959ED	W7212	$54.95	$49.49	$39.59

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Jameco carries a huge selection of Table-Top Power Supplies. See our website for more.

Part Number	Mfr. ▲	Product Number ▲	Watts (W)	Output (VDC/A)	Input (VAC @ Hz)	Input Connector/Cord	Output Connector/Cord	Certification	Size L" x W" x H"	Weight (lbs.)	Type/Color	Mode†	Pricing		
													1	10	50
116089ED	Atari	C070042	5.0	+5/1	115 @ 60	2-prong/6' cord	7-pin DIN M/6'	UL	3.4 x 2.7 x 2.3	1.6	Table/Black	L	$8.39	$7.55	$6.05
154624ED	Motorola*	5712-305-4C3E	5.6	+5/0.5, +12/0.13, -12/0.13	120 @ 60	3-prong wall plug	8-pin mini DIN M/6'	UL/CSA	2.9 x 2.6 x 1.9	1.2	Wall/Black	L	11.49	10.39	8.29
155651ED	Globtek	TR2V100MD8	12.2	+5/1, +12/0.3, -12/0.3	120 @ 60	3-prong/6' cord	8-pin mini DIN M/6'	UL	4.5 x 3.0 x 2.5	2.6	Table/Black	L	9.69	8.69	7.79
189843ED	ACI World	EPA201D12	20.0	+12/1.66	100-240 @ 50-60	3-prong recep./**	8-pin mini DIN M/3'4'	UL/CSA/TUV/CE	4.3 x 2.3 x 1.3	1.0	Table/Black	S	9.95	8.99	7.49
190959ED	Mean Well	P25A13D	25.7	+5/2.5, +12/0.8 -12/0.3	100-240 @ 47-63	3-prong/6' cord	5-pin DIN M/6'	CUL/TUV/CE	4.1 x 2.6 x 1.4	1.1	Table/Black	S	37.95	33.95	30.95
182959ED	Elpac*	W7212	72.0	+12/6	95-250 @ 47-63	3-prong/6' cord	5-pin DIN F/6'	UL/CSA/CE	6.2 x 3.8 x 2.6	2.5	Table/Black	S	54.95	49.49	39.59

* See photo above   ** Use P/N 38050ED (pg 25) power cord   † S = switching; L = linear   ▲ Mfr. and Product Number may vary

AC to AC Wall Transformers

- Input: 120VAC @ 60Hz   • Current rating up to 1.85A
- Plugs into standard 2-prong/3-prong 115V outlet
- See page 52 for wall transformer enclosures

SALE

We will change any power plug (see web) on any AC wall transformer listed (100 piece minimum)

101127ED   Female Male

185439ED   10102ED

Part Number	Mfr. Cross Reference No.▲	Output Rating		Output Plug ID x OD (mm) Plug Type	Dimensions (in.) (±10%)			Output Cord Length	Weight (lbs.)	Agency Approvals	Pricing		
		Voltage	Current		H	W	D				1	10	50
101127ED	DFX10096B	7 VAC	1500 mA	2.5 mm x 5.5 mm female	1.88	2.20	1.95	7' 6"	0.8	UL/CSA	$4.95	$4.49	$3.95
119204ED	A41090800	9 VAC	800 mA	2.1 mm x 5.5 mm female	2.55	1.91	1.7	6'	0.6	UL	4.49	3.59	2.69
112336ED	AC915F5	9 VAC	1500 mA	2.5 mm x 5.5 mm female	2.50	2.20	1.96	6'	0.9	UL	9.95	8.99	8.09
101258ED	41A12-500	12 VAC	500 mA	2.1 mm x 5.5 mm female	2.76	1.97	1.60	6'	0.6	UL/CSA	4.59	4.15	3.65
10081ED	AC1210F1	12 VAC	1000 mA	2.1 mm x 5.5 mm female	2.56	2.39	1.99	6'	0.7	UL/CSA	4.95	4.49	3.99
100167ED	AC1210F5	12 VAC	1000 mA	2.5 mm x 5.5 mm female	3.20	2.41	2.00	6'	0.7	UL/CSA	4.95	4.49	3.65
171408ED	AC1405F1	14 VAC	500 mA	2.1 mm x 5.5 mm female	2.76	1.97	1.60	6'	0.6	UL/CSA	4.95	4.49	3.95
185439ED	T5182200-A020G	18 VAC	1850 mA	2.1 mm x 5.5 mm right angle female	3.34	2.69	2.19	6'	1.7	UL/CSA	7.95	7.19	6.49
87581ED	AC2405F1	24 VAC	500 mA	2.1 mm x 5.5 mm female	2.50	2.24	1.92	6'	0.9	UL/CSA	4.95	4.49	3.99
140599ED	AC2410F1	24 VAC	1000 mA	2.1 mm x 5.5 mm female	3.00	2.20	1.90	6'	1.2	UL/CSA	8.95	8.09	6.49
10102ED	AC2410M3	24 VAC	1000 mA	3.5 mm male	3.00	2.20	1.90	6'	1.2	UL/CSA	7.95	7.19	6.45
176356ED	WP573024	24 VAC	1250 mA	2.1 mm x 5.5 mm female	3.36	2.67	2.20	5'8"	1.6	UL/CSA	10.49	9.45	8.55

▲ Manufacturer may vary

164101ED **190529ED** Stripped Female Male **100853ED** **101291ED**

AC to DC Wall Transformers
Unregulated unless specified under "output plug"
- Input: 120VAC @ 60Hz
- Current rating up to 1.5A
- Plugs into standard 2-prong/3-prong 115V outlet
- See page 40 for wall transformer enclosures

SALE

cUL CSA UL

Polarity 1 (+ • −) (center negative)

Polarity 2 (− • +) (center positive)

We will change any power plug (see pg 52) on any DC wall transformer listed (100 pc. minimum)

Part Number	Mfr. Cross Reference No.*	Output Rating Volt. (VDC)	Current	Output Plug ID x OD (mm) Plug Type / Polarity	Dimensions (in.) (±10%) H	W	D	Case Color	DC Cord Length	Weight (lbs.)	Agency Approvals	Pricing 1	10	50
164101ED	DCR505F12	5	500 mA	2.1 mm x 5.5 mm female 2 (regulated)	2.76	2.02	1.59	Black	6'	0.6	UL/CSA	$8.95	$8.09	$7.25
171301ED	JOD48U08	5	1000 mA	2.1 mm x 5.5 mm female 2 (regulated)	3.13	2.93	2.00	Black	6'	1.0	UL/CUL	9.95	8.95	7.95
168604ED	RWP480505	5	1000 mA	2.5 mm x 5.5 mm female 2 (regulated)	3.30	2.20	1.92	Black	6'	1.2	UL/CSA	10.95	9.89	8.89
101266ED	DC605F12	6	500 mA	2.1 mm x 5.5 mm female 2	2.44	1.89	1.61	Black	6'	0.4	UL/CSA	3.95	3.59	3.25
190529ED	AD9123	9	250 mA	2.5 mm x 5.5 mm rt. angle female 2 (reg)	2.47	2.02	1.60	Black	12'	0.5	UL/CSA	5.69	5.15	4.55
133891ED	DC903F1	9	300 mA	2.1 mm x 5.5 mm female 2	2.00	1.50	1.50	Black	6'	0.4	UL/CSA	3.95	3.19	2.39
140636ED	DC904F5	9	400 mA	2.5 mm x 5.5 mm female 2	2.58	2.00	2.00	Black	6'	0.6	UL/CSA	3.69	3.35	2.99
100853ED	DC905F12	9	500 mA	2.1 mm x 5.5 mm female 2	2.50	1.90	1.74	Black	6'	0.6	UL/CSA	4.49	4.05	3.65
100175ED	DC906F5	9	600 mA	2.5 mm x 5.5 mm female 2	2.50	1.90	1.75	Black	6'	0.6	UL/CSA	5.49	4.75	4.25
100888ED	48-09-1000D	9	1000 mA	2.1 mm x 5.5 mm female 2	2.58	2.39	1.97	Black	6'	1.0	UL/CSA	7.95	6.49	5.59
102496ED	DC1205F12	12	500 mA	2.1 mm x 5.5 mm female 2	2.50	1.90	1.57	Black	6'	0.6	UL/CSA	4.95	4.49	4.05
131300ED	SCP41	12	500 mA	2.1 mm x 5.5 mm right angle female 2	2.60	1.90	1.74	Beige	6'	0.6	UL/CSA	4.95	4.49	4.05
102277ED	DC1205F5	12	500 mA	2.5 mm x 5.5 mm female 2	2.50	2.08	1.68	Black	6'	0.6	UL/CSA	4.95	4.49	4.05
100870ED	DC1210F1	12	1000 mA	2.1 mm x 5.5 mm female 2	2.58	2.39	1.97	Black	6'	0.9	UL/CSA	7.95	6.95	6.25
170245ED	DCR1210F12	12	1000 mA	2.1 mm x 5.5 mm female 2 (regulated)	3.20	2.26	1.97	Black	6'	1.2	—	13.95	12.59	11.35
105478ED	DC1210F5	12	1000 mA	2.5 mm x 5.5 mm female 2	2.58	2.39	1.97	Black	6'	1.0	UL/CSA	6.95	6.25	5.59
196779ED	D1212950	12	1200 mA	2.5 mm x 5.5 mm female 2	3.04	2.29	1.85	Black	6"	1.0	UL/CUL	7.79	6.95	6.29
101291ED	DC1215F5	12	1500 mA	2.5 mm x 5.5 mm female 2	3.40	2.70	2.20	Black	6'	1.5	UL	9.95	8.99	8.09
192786ED	MK135100	13.5	1000 mA	2.1 mm x 5.5 mm female 1	2.90	2.27	1.95	Black	6'	1.0	UL	8.95	7.19	5.39
190001ED	DC1505F1	15	500 mA	2.1 mm x 5.5 mm female 2	2.30	2.35	1.90	Black	6'	0.8	UL/CSA	6.95	6.29	5.65
155803ED	DC1506F11	15	600 mA	2.1 mm x 5.5 mm female 1	2.90	2.33	1.90	Black	6'	1.0	UL/CSA	7.95	7.19	6.45
191652ED	DC1510F12	15	1000 mA	2.1 mm x 5.5 mm female 2	3.26	2.20	1.90	Black	6'	1.0	UL/CSA	9.59	8.65	7.79
169391ED	WA15-150	15	1000 mA	2.5 mm x 5.5 mm female 2 (regulated)	2.90	1.90	1.60	Black	6'	0.5	UL/CUL	11.95	10.38	9.08
162317ED	DC1605F1	16	500 mA	2.1 mm x 5.5 mm female 2	2.23	2.35	1.90	Black	6'	0.8	UL/CSA	7.95	6.95	6.25
168487ED	KWM020188	18	1000 mA	2.1 mm x 5.5 mm female 2 (regulated)	2.91	1.94	1.62	Black	6'	0.4	UL/CUL	17.95	16.19	14.55
102285ED	DC2404F1	24	400 mA	2.1 mm x 5.5 mm female 2	3.00	2.30	2.00	Black	6'	0.9	UL/CUL	7.95	7.19	6.45

* Manufacturer may vary

Component Grab Bags

- Use our 20-drawer cabinet with labels to store your components, P/N 81701ED, pg 52
- Opened grab bags are not returnable

Cabinet – 81701ED

Capacitors 135394ED

Part No.	Cross Ref. No.	Description	Wt. (lbs.)	1	10
135394ED	GB102LB*	1.5 lb. assorted (300 pcs) electrolytic caps. radial, axial, snap (photo above)	1.5	$12.95	$11.49
17945ED	GB103	100 assorted tantalum capacitors (dipped epoxy and solid tubular)	0.1	9.95	8.95

Integrated Circuits 135280ED

Part No.	Cross Ref. No.	Description	Wt. (lbs.)	1	10
135280ED	GB108LB*	1 lb. (400 pcs) asst. 7400, 74LS00 series (74, 74C, 74F, 74S, 74ALS, 74HC, 74HCT)	1.0	$16.95	$14.95
145242ED	GB109LB*	2 lb. (300 pcs) asst. linear series (LM300, 500, 700, 7800, 7900 reg.)	2.0	16.95	14.95

LEDs 18041ED

Part No.	Cross Ref. No.	Description	Wt. (lbs.)	1	10
18041ED	GB110	100 assorted sizes & colored LEDs (T1/T1 3/4 round and rectangular)	0.1	$6.95	$6.29
18323ED	GB186	500 asst. sizes #18041 LEDs	0.3	19.95	17.95
135271ED	GB110LB*	1 lb. (1900 pcs) asst. #18041 LEDs	1.0	44.95	40.95

1/4W Resistors 135351ED
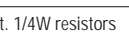
Part No.	Cross Ref. No.	Description	Wt. (lbs.)	1	10
135351ED	GB116LB*	1 lb. (2000 pcs) asst. 1/4W resistors	1.0	$14.95	$13.49

* LB grab bag quantities are approximate

Hardware Assortment
- 2-56 • 4-40 • 6-32 • 8-32 • Screws
- Nuts • Washers • Steel • Brass • Lock Washers • Aluminum • Plastic

Part No.	Cross Ref. No.	Description	Wt. (lbs.)	1	10	25
171635ED	GB149LB*	3 lbs. (1400 pcs) assorted types of screws	3.0	$12.95	$11.49	$9.95

Schwab's School Selection

$56.63 Value

A selection of Jameco's nine most popular Grab Bags, all individually bagged. North Dakota Engineer, Loren Schwab, recommended this selection of products as a standard item. He also recommends a 20-drawer component cabinet with labels (81701ED photo above) for storage.

Includes: Ceramic and electrolytic capacitors, diodes, transistors, potentiometers, switches, LEDs, 1/4W resistors, spacers and standoffs.

Part No.	Cross Ref. No.	Description	Wt. (lbs.)	1	10
163213ED	GB197	Schwab's School Selection	3.3	$39.95	$34.95
81701ED	CAB20	20-drawer component cabinet	4.7	15.95	13.95

Surprise Component Grab Bag

Our Best Seller!

Axial and radial electrolytics, monolithic, dipped silver mica and mylar capacitors, connectors, sockets, thermistors, fuses, resistor networks, diodes, ICs, standoffs, transistors, oscillator/resonators, inductors, crystals, resistors, pots and switches (1075 pcs).

Part No.	Cross Ref. No.	Description	1	10	25
135263ED	GB191LB*	3 lbs. electronic components	$17.95	$15.95	$13.95

* LB grab bag quantities are approximate

JAMECO

Kits include the Most Popular Components and a Cabinet with extra drawers for your Customized Expansion

Each Kit includes a 20-Drawer Component Cabinet (81701ED), 20 clear plastic drawers (85454ED), 20 clear dividers (85446ED), 30 adhesive labels for drawers to identify parts in kit, and all the Electronic Components listed in each kit.

20-drawer component cabinet with every kit!

- Cabinet size: 6.0"L x 15.0"W x 7.9"H
- Drawer size: 5.5"L x 2.7"W x 1.5"H
- Cabinet is wall-mountable or free standing
- Cabinet: ABS-Black
- Weight: 4.6 to 6.4 lbs.

Need a refill? Just call 1•800•455•6119

See website for refill kits www.Jameco.com

81875ED (Capacitor Kit)

85059ED (Switch Kit)

1/2-Watt Single Turn Cermet Pot Kit SAVE $15

Includes 100 pcs. (10 values) 1/2-watt Linear Taper Potentiometer

10 each	10 each	10 each	10 each	10 each
63P500Ω	63P5kΩ	63P500kΩ	63P1kΩ	63P50kΩ
63P2kΩ	63P20kΩ	63P1MΩ	63P10kΩ	63P100kΩ

Part No.	Description	Wt. (lbs.)	1	10
85032ED	100 pcs. single turn Pot kit	4.9	$65.95	$58.95

3/4-Watt 15 Turn Cermet Pot Kit SAVE $27

Includes 100 pcs. (10 values) 3/4-watt Linear Taper Potentiometer

10 each	10 each	10 each	10 each	10 each
43P500Ω	43P5kΩ	43P500kΩ	43P1kΩ	43P50kΩ
43P2kΩ	43P20kΩ	43P1MΩ	43P10kΩ	43P100kΩ

Part No.	Description	Wt. (lbs.)	1	10
85041ED	100 pcs. 15 turn Pot kit	4.9	$87.95	$78.95

Switch Assortment Kit SAVE $53

Includes 150 pcs. (15 types) PB, Slide, Dip & Toggle Switches

10 each	10 each	10 each	10 each	10 each
206-4	JMT121	JMT223	MPC221	MS103
206-8	JMT123	MPC121	MPC223	SDTX620K
JMT113	JMT221	MPC123	MS102	SW153

Part No.	Description	Wt. (lbs.)	1	10
85059ED	150 pcs. Switch kit	5.0	$98.95	$88.95

Hardware and Spacer Assortment Kit SAVE $31

Includes 2300 pcs. (23 types) Spacers, Nuts, Flat, Tooth & Lock Washers and Slotted PH Screws

100 each	100 each	100 each	100 each	100 each	100 each
Spacers	Hex nuts	Flat,	Int. tooth,	Split lock	PH machine screws
—	2-56	—	—	#2	2-56 x 1/4, —
4-40	4-40	#4	#4	#4	4-40 x 1/4, 1/2
6-32	6-32	#6	#6	#6	6-32 x 1/4, 1/2
8-32	8-32	#8	#8	#8	8-32 x 1/2, —

Part No.	Description	Wt. (lbs.)	1	10
108433ED	2300 pcs. Hardware kit	7.5	$59.95	$53.95

Ceramic Disc Capacitor Kit SAVE $19

Includes 520 pcs. (10 values) 50v ±20% Ceramic Disc Capacitors

20 each	20 each	20 each	100 each	100 each
10pF	47pF	470pF	.022µF	.01µF
22pF	100pF	.001µF	.047µF	.1µF

Part No.	Description	Wt. (lbs.)	1	10
81859ED	520 pcs. Ceramic Capacitor kit	5.0	$32.95	$29.95

Monolithic Ceramic Capacitor Kit SAVE $9

Includes 280 pcs. (10 types) 50v ±20% Monolithic Ceramic Capacitors

10 each	10 each	10 each	10 each	100 each
22pF	.001µF	.047µF	.47µF	.01µF
100pF	.0022µF	.22µF	1µF	.1µF

Part No.	Description	Wt. (lbs.)	1	10
171475ED	280 pcs. Monolithic Cap kit	5.0	$34.99	$31.49

Radial Electrolytic Capacitor Kit SAVE $9

Includes 240 pcs. (15 values) ±20% Radial Electrolytic Capacitors

10 each	10 each	20 each	20 each	20 each
100µF @ 50v	1000µF @ 16v	1µF @ 50v	3.3µF @ 50v	22µF @ 50v
220µF @ 25v	2200µF @ 25v	1µF @ 100v	4.7µF @ 50v	47µF @ 50v
470µF @ 25v	3300µF @ 25v	2.2µF @ 50v	10µF @ 50v	100µF @ 25v

Part No.	Description	Wt. (lbs.)	1	10
81867ED	240 pcs. Radial Cap. kit	5.3	$32.95	$29.95

Axial Electrolytic Capacitor Kit SAVE $13

Includes 140 pcs. (10 values) ±20% Axial Electrolytic Capacitors

10 each	10 each	10 each	20 each	20 each
47µF @ 50v	220µF @ 50v	1000µF @ 25v	1µF @ 50v	10µF @ 50v
100µF @ 50v	470µF @ 50v	2200µF @ 16v	4.7µF @ 50v	2.2µF @ 50v

Part No.	Description	Wt. (lbs.)	1	10
81875ED	140 pcs. Axial Capacitor kit	5.3	$39.99	$35.99

Mylar Capacitor Kit SAVE $10

Includes 280 pcs. (10 values) 100v ±10% Mylar Capacitors

10 each	10 each	10 each	10 each	100 each
.001µF	.022µF	.047µF	.47µF	.01µF
.0047µF	.033µF	.22µF	1µF	.1µF

Part No.	Description	Wt. (lbs.)	1	10
81883ED	280 pcs. Mylar Capacitor kit	5.1	$39.99	$35.99

Dipped Tantalum Capacitor Kit SAVE $50

Includes 150 pcs. (15 values) ±20% Dipped Tantalum Capacitors

10 each	10 each	10 each	10 each	10 each
.1µF @ 35v	1µF @ 25v	3.3µF @ 35v	10µF @ 16v	22µF @ 16v
.22µF @ 35v	1µF @ 35v	4.7µF @ 35v	10µF @ 35v	33µF @ 25v
.47µF @ 35v	2.2µF @ 16v	6.8µF @ 35v	15µF @ 25v	47µF @ 25v

Part No.	Description	Wt. (lbs.)	1	10
81841ED	150 pcs. Tantalum Capacitor kit	4.8	$74.95	$67.95

Transistor Assortment Kit SAVE $12

Includes 560 pcs. (20 types) NPN, PNP (High/Medium/Low Power) Transistors

10 each	10 each	10 each	10 each	100 each
2N2222A	2N4401	MJE3055T	TIP31A	2N3904
2N2907A	2N4403	MPF102	TIP32A	2N3906
2N3053	2N5951	MPSA06	TIP102	PN2222
2N3055	2N7000	MPSA13	TIP120	PN2907

Part No.	Description	Wt. (lbs.)	1	10
82595ED	560 pcs. Transistor kit	5.1	$87.95	$78.95

7400 Series IC Kit SAVE $71

Includes 350 pcs. (30 types) 7400 (TTL) Integrated Circuits

10 each	10 each	10 each	10 each	10 each	20 each
7402	7416	7438	74107	74157	7400
7405	7417	7447	74123	74160	7404
7408	7420	7470	74132	74174	7406
7410	7430	7485	74151	74175	7407
7414	7432	7495	74153	74279	7474

Part No.	Description	Wt. (lbs.)	1	10
84953ED	350 pcs. 7400 IC kit	6.2	$139.95	$125.95

Kits include the Most Popular Components and a Cabinet with extra drawers for your Customized Expansion

Each Kit includes a 20-Drawer Component Cabinet (81701ED), 20 clear plastic drawers (85454ED), 20 clear dividers (85446ED), 30 adhesive labels for drawers to identify parts in kit, and all the Electronic Components listed in each kit.

81875ED (Capacitor Kit)

20-drawer component cabinet with every kit!

- Cabinet size: 6.0"L x 15.0"W x 7.9"H
- Drawer size: 5.5"L x 2.7"W x 1.5"H
- Cabinet is wall-mountable or free standing
- Cabinet: ABS-Black
- Weight: 4.6 to 6.4 lbs.

See website for refill kits www.Jameco.com

Need a refill? Just call 1•800•455•6119

108433ED (Hardware Kit)

74LS Series IC Kit

Includes 420 pcs. (35 types) 74LS (TTL) Integrated Circuits

SAVE $45

10 each	10 each	10 each	10 each	20 each
74LS05	74LS73	74LS125	74LS193	74LS00
74LS10	74LS75	74LS139	74LS240	74LS02
74LS11	74LS85	74LS151	74LS244	74LS04
74LS14	74LS86	74LS155	74LS245	74LS08
74LS20	74LS90	74LS157	74LS273	74LS32
74LS30	74LS93	74LS174	74LS373	74LS74
74LS47	74LS123	74LS175	74LS374	74LS138

Part No.	Description	Wt. (lbs.)	1	10
84961ED	420 pcs. 74LS IC kit	6.7	$119.99	$107.99

4000 Series CMOS IC Kit

Includes 300 pcs. (25 types) CD4000 Series Integrated Circuits

SAVE $36

10 each	10 each	10 each	10 each	20 each
CD4015	CD4024	CD4051	CD4093	CD4001
CD4016	CD4027	CD4069	CD4511	CD4011
CD4017	CD4040	CD4070	CD4538	CD4013
CD4020	CD4046	CD4071	CD4543	CD4049
CD4023	CD4050	CD4081	CD4584	CD4066

Part No.	Description	Wt. (lbs.)	1	10
84970ED	300 pcs. 4000 series CMOS IC kit	6.1	$79.95	$71.95

Linear Series IC Kit

Includes 480 pcs. (40 types) Linear Series Integrated Circuits

SAVE $60

10 each	10 each	10 each	10 each	20 each
TL072CP	LM337T	LF412CN	ULN2803A	LM317T
TL074CN	LF353N	LMC555CN	NE5532	LM324N
TL082CP	LF356N	LM556N	7808T	LM339N
TL084CN	LM358N	LM723CN	78L12	LM741CN
MAX232CPE	LM386N-1	LM1458N	7815T	LM555CN
LM301N	LM386N-3	LM1488N	7905T	7805T
LM308N	LM393N	LM1489N	7912T	78L05
LM311N	LF411CN	ULN2003A	7915T	7812T

Part No.	Description	Wt. (lbs.)	1	10
84988ED	480 pcs. Linear IC kit	6.0	$189.95	$169.95

Grab Bag Refill Kits @ www.Jameco.com

LEDs & LED Mounting Hardware Kit

See pages 10 & 11 for photos and specs.

Includes 560 pcs. (20 types) LEDs and mounting hardware

SAVE $39

10 each	10 each	10 each	10 each	100 each
LVG2043	HPQLMPD141	LSG2040	LG3330	LMH100
LH2043	CLF280CTP	LY2040	LY3330	LMH200
LT0333-41	LTL-425B	LA93B/G-1	LFH3360	LR2040
LG3333	LHG3392	LA93B/H-1	LEG3362	LR3330

Part No.	Description	Wt. (lbs.)	1	10
84996ED	560 pcs. LED & Hardware kit	5.0	$59.95	$49.95

1/8-Watt Carbon Film Resistor Kit

SALE

Includes 540 pcs. (30 values) 1/8-watt 5% Resistors

10 each	10 each	10 each	10 each	10 each	10 each	50 each	50 each
10Ω	330Ω	1.5kΩ	3.3kΩ	15kΩ	47kΩ	100Ω	4.7kΩ
47Ω	390Ω	2Ω	5.1kΩ	22kΩ	470kΩ	220Ω	10kΩ
150Ω	470Ω	2.2kΩ	5.6kΩ	27kΩ	1MΩ	1kΩ	100kΩ
270Ω	680Ω	2.7kΩ	6.8kΩ	33kΩ	10MΩ		

Part No.	Description	Wt. (lbs.)	1	10
108329ED	540 pcs. 1/8-watt Resistor kit	4.9	$24.95	$22.49

1/4-Watt Carbon Film Resistor Kit

Includes 540 pcs. (30 values) 1/4-watt 5% Resistors

10 each	10 each	10 each	10 each	10 each	10 each	50 each	50 each
10Ω	330Ω	1.2kΩ	2.7kΩ	15kΩ	47kΩ	100Ω	4.7kΩ
47Ω	390Ω	1.5kΩ	3.3kΩ	20kΩ	470kΩ	220Ω	10kΩ
150Ω	470Ω	2kΩ	5.1kΩ	22kΩ	1MΩ	1kΩ	100kΩ
270Ω	680Ω	2.2kΩ	5.6kΩ	33kΩ	10MΩ		

Part No.	Description	Wt. (lbs.)	1	10
81832ED	540 pcs. 1/4-watt Resistor kit	4.9	$27.95	$24.95

1/2-Watt Carbon Film Resistor Kit

Includes 540 pcs. (30 values) 1/2-watt 5% Resistors

10 each	10 each	10 each	10 each	10 each	10 each	50 each	50 each
10Ω	330Ω	1.5kΩ	3.3kΩ	15kΩ	47kΩ	100Ω	4.7kΩ
47Ω	390Ω	2kΩ	5.1kΩ	22kΩ	470kΩ	220Ω	10kΩ
150Ω	470Ω	2.2kΩ	5.6kΩ	27kΩ	1MΩ	1kΩ	100kΩ
270Ω	680Ω	2.7kΩ	6.8kΩ	33kΩ	10MΩ		

Part No.	Description	Wt. (lbs.)	1	10
107879ED	540 pcs. 1/2-watt Resistor kit	5.1	$29.95	$26.95

5mm x 20mm Minature Fuses

Fast Acting (250V) GMA Fuses

- Recommended for new designs
- Prepackaged: order in increments of 10, 100 or 1000

Part No.	Amps	Mfr.	10	100	500	1000
103886ED	250mA	Various	$.20	$.15	$.11	$.10
102040ED	500mA	Various	.20	.15	.11	.10
103907ED	1 amp	Various	.20	.15	.11	.10
103915ED	2 amp	Various	.20	.15	.11	.10
103923ED	3 amp	Various	.20	.15	.11	.10
103931ED	5 amp	Various	.20	.15	.11	.10

5mm x 20mm Miniature Low-Profile Fuse Holder

- Accepts 5 x 20mm fuses
- 10A @ 250VAC
- Size: 1.4"L x 0.6"Dia.
- D style mounting hole: 1 ea. 0.5"Dia x .46" flat

Part No.	Description	1	10	100
102832ED	Fuse holder UL/CSA	$1.95	$1.79	$1.59

54 More Fuses @ www.Jameco.com

140-Watt DC-AC Inverter
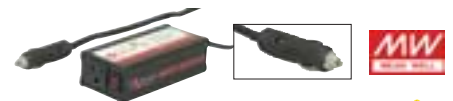
- Input voltage: 10-15VDC
- Output voltage: 110VAC @ 60Hz
- Battery low shutdown • Peak power surge capable
- Overload & high grade thermal protection
- Size: 5.5"L x 2.6"W x 1.6"H • Weight: 1.3 lbs.

SALE

Part No.	Description	1	10	25
188293ED	Cigarette plug	$49.95	$42.49	$31.89

Color Code Legend
SALE REFURBISHED CLOSEOUT

Miniature Toggle Switches

- Mounting hole diameter: 1/4"
- **Includes:** Mounting hardware

Figure 1   Figure 2   Figure 3
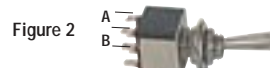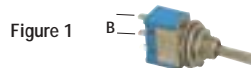
Part No.	Mfr. Cross Ref. No.	Fig.	Pins	Type ( ) Momentary		L" x W" x D"	Dimensions A"	B"	C"	Lead Spacing Contact Rating	Lead Type	Lever Type	Pricing 1	10	100	250	OEM 1000
76523ED	JMT113	1	2	SPST	on-off	.52 x .32 x .38	—	.185	—	6A @ 125VAC & 3A @ 250VAC	Solder lugs	Round	$1.15	$1.03	$.93	$.75	$.65
21936ED	JMT123	3	3	SPDT	on-on	.52 x .32 x .38	—	.185	—	5A @ 125VAC & 2A @ 250VAC	Solder lugs	Round	1.15	1.03	.93	.75	.65
22832ED	LFH123	3	3	SPDT	on-on	.52 x .28 x .36	—	.185	—	5A @ 125VAC & 2A @ 250VAC	Solder lugs	Flat	1.15	1.05	.95	.85	.75
21979ED	JMT223	2	6	DPDT	on-on	.52 x .52 x .38	.20	.185	—	5A @ 125VAC & 2A @ 250VAC	Solder lugs	Round	1.49	1.29	1.15	.99	.59
75900ED	SWM133	2	6	DPDT	on-on	.52 x .52 x .38	.20	.185	—	6A @ 125VAC & 3A @ 250VAC	Solder lugs	Round	1.49	1.35	1.25	.99	.85
21952ED	JMT221	2	6	DPDT	on-off-on	.52 x .52 x .38	.20	.185	—	6A @ 125VAC & 3A @ 250VAC	Solder lugs	Round	1.29	1.16	1.04	.89	.75
75951ED	SWM130	2	6	DPDT	(on)-off-(on)	.52 x .52 x .38	.20	.185	—	6A @ 125VAC & 3A @ 250VAC	Solder lugs	Round	1.49	1.35	1.25	.99	.89
26358ED	MPC221	2	6	DPDT	on-off-on	.52 x .52 x .38	.20	.185	—	5A @ 125VAC & 2A @ 250VAC	PC	Round	1.19	1.09	.91	.73	.55

Subminiature Toggle Switches

- Mounting hole diameter: 7/32"
- Pre-tinned leads
- Metal construction
- **Includes:** Mounting hardware

Figure 1   Figure 2   Figure 3

Part No.	Mfr. Cross Ref. No.	Fig.	Pins	Type		Dimensions L" x W" x D"	Lead Spacing A"	B"	Contact Rating	Lead Type	Lever Type	Pricing 1	10	100	250	OEM 1000
106067ED	SWP124	1	3	SPDT	on-on	.25 x .33 x .40	.20	.10	30mA @ 5VDC	PC right angle	Round	$1.99	$1.83	$1.59	$1.44	$1.32
72160ED	SW1501	2	2	SPST	on-off	.33 x .21 x .33	.10	—	1.5A @ 250VAC	Solder lugs	Round	1.29	1.24	1.14	.98	.79
75969ED	SWM136	2	3	SPDT	on-on	.33 x .21 x .33	.10	—	3A @ 125VAC	Solder lugs	Round	1.55	1.44	1.21	.86	.63
72557ED	SW1502	2	3	SPDT	on-off-on	.33 x .21 x .33	.10	—	1.5A @ 250VAC	Solder lugs	Round	1.35	1.25	1.05	.85	.60
138907ED	SW1503	2	6	DPDT	on-off-on	.36 x .37 x .33	.10	—	3A @ 120VAC	Solder lugs	Round	1.29	1.05	.85	.65	.55
75977ED	SWM137	3	6	DPDT	on-on	.33 x .37 x .33	.17	.10	1.5A @ 250VAC	Solder lugs	Round	1.29	1.05	.85	.65	.55

Pushbutton Switches

- Contact rating: 3A @ 125VAC   • 2-pins   • Lead type: solder terminal

SALE   Mountain Switch

Miniature Soft Touch Switch

Part No.	Product No.	Fig.	Type ( ) Momentary	Dimensions	Lead Spacing	Thread Diameter	Button Color	Pricing 1	10	100	1000
164486ED	DS463R	1	SPST off-(on)	1.2"L x .59"Dia.	.175"	.387"	Red	$1.64	$1.58	$1.47	$1.45

Figure 1

Standard Touch Switch

Part No.	Product No.	Fig.	( ) Momentary	Dimensions	Lead Spacing	Thread Diameter	Button Color	Pricing 1	10	100	1000
164582ED	DS016B	2	SPST off-(on)	.88"L x .46"Dia.	.220"	.354"	Black	$1.49	$1.39	$1.25	$1.15

Figure 2

Pushbutton Switches

- Pins: 2   • Normally open and closed configurations   • Momentary action pushbutton switches
- **Includes:** Mounting hardware

Figure 1   Figure 2

Part No.	Mfr. Cross Ref. No.	Fig.	Mounting Hole Dia.	Type ( ) Momentary	Dimensions (L" x W" x D")	Lead Spacing A"	B"	Contact Rating	Terminal Type	Button Color	Pricing 1	10	100	250	OEM 1000
26622ED	MS102	1	1/4"	SPST off-(on)	.65 (D) x 1.10 (E)	—	.14	3A @ 125VAC	Solder lugs	Red	$.55	$.50	$.45	$.35	$.29
26649ED	MS103	1	1/4"	SPST on-(off)	.65 (D) x 1.10 (E)	—	.17	3A @ 125VAC	Solder lugs	Black	.55	.50	.45	.35	.29
71642ED	SWB210	2	7/32"	SPST off-(on)	.33 x .36 x .20	.20	.20	1A @ 120VAC	PC right angle	Black	2.19	1.99	1.78	1.60	1.39

Tactile Switches

- Bounce time: 10 msec.   • SPST momentary ON   • Contact resistance: 100mΩ

Figure 1   Figure 2

Part No.	Mfr. Cross Ref. No.*	Fig.	Pins	L	Dimensions (in.) W	D	C	Lead Spacing A"	B"	Contact Rating	Lead Type	Button Color	Pricing 1	10	100	250
122972ED	DTS1212	1	4	.47	.47	.18	—	.20	.50	20mA @ 15VDC	PC	Black	$.28	$.23	$.20	$.18
155379ED	KRS-1273B	2	4	.47	.47	.14	.14	.17	.53	50mA @ 12VDC	PC	Brown	.39	.35	.31	.26

*Manufacturer cross reference number and manufacturer may vary
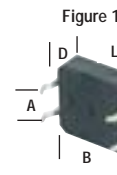
Full Size Toggle Switch

- Contact rating: 10A @ 125 VAC & 6A @ 250VAC
- Panel mount   • Mounting hole diameter: 1/2"
- Full-size round lever   • Keyed plate indicates switch position
- Medium duty   • Type: DPDT on-on
- Lead type: screw lugs
- **Includes:** Mounting hardware and on/off plate

6-pin

Part No.	Mfr. Cross Ref. No	Dimensions	Lead Spacing (A/B/C)	1	10	100	250
158078ED	JKN3CC	1.9"L x .76"W x .73'D	.44" x .59" x .44"	$1.75	$1.59	$1.29	$.99
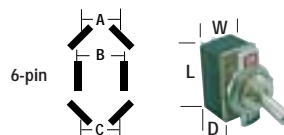
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See our website for our selection of **Rotary and Plunger Switches.**

Excell Rotary DIP Switches

- Gold plated contacts to ensure reliable, low resistance connection
- Fully sealed construction
- Terminals: PC pin leads
- Life: 10,000 cycles min.
- Material: 94V-0 grade, UL approved fire retardant plastic
- Ma. switching load rating: 25mA @ 24VDC
- Op force: 500g-cm ma.

SALE

139635ED   **139651ED**

Part No.	Product No.	Position	Adjust	Code Type	W" x D" x H"	1	10	50	100
139635ED	ERD110RS(DRD10)	10	top	BCD	0.39 x 0.39 x 0.20	$2.65	$2.39	$2.13	$1.89
139651ED	ERD116RS	16	top	Hex	0.39 x 0.20 x 0.39	2.75	2.49	2.22	1.99

Magnetic Reed Switches *SALE*

- NO (normally open) • Contact form: SPST

171871ED: • Rating: 500mA @ 100VDC   **164081ED:** • Rating: 1A @ 250VAC; 1A @ 50VDC

164081ED

Part No.	Product No.	Size (length includes leads)	1	10	100	1000
171871ED	MKA141011015	1.73"L x 0.1"Dia.	$.89	$.65	$.49	$.45
164081ED	MRS1	2.35"L x 0.2"Dia.	.87	.61	.42	.38

SPST Round Keylock Switch

- Used in computer & other security systems
- Key removable from 2 positions
- Voltage: 125VAC • Current: 3A
- Two keys • Style SPST
- Terminal: barrel
- Length: .55"
- Number flat: 2
- Diameter: .21"
- Mounting hole: 0.5"

Includes: Mounting nut

Part No.	Mfr. Cross Ref. No.	1	10	50	100
106649ED	KS4B	$3.55	$3.25	$2.89	$2.49

DIP Switches

109057ED   **38818ED**   **38842ED**   **38797ED**

- Switch contacts: SPST • Switches are numbered
- 50VDC @ 100mA • Molded construction
- Standard switches have raised lever
- LP switches are flush to casing • Pre-tinned leads

Compatible Socket Chart, see website for Sockets

Switch	Socket	Switch	Socket	Switch	Socket
109057ED	112192ED	38826ED	37161ED	38797ED	38607ED
38818ED	51570ED	38842ED	37372ED		

Part No.	Mfr. Cross Ref. No.*	Pos.	Pricing			
			1	10	100	1000
109057ED	206-2	2	$.75	$.68	$.61	$.55
38818ED	206-4	4	.79	.65	.55	.45
38826ED	206-6	6	.99	.89	.79	.72
38842ED	206-8	8	.89	.80	.72	.64
38797ED	206-10	10	.99	.79	.59	.42

* Manufacturer Cross Reference number and manufacturer may vary

Rotary Switches

- Panel mount
- Make before break
- Solder lugs
- Layers: 1
- Contact rating: 30VDC @ 0.3A
- Insulation resistance: 10MΩ min.
- Contact resistance: 30mΩ
- Material: solid brass bushings, slotted aluminum shafts, plated frame, phenolic contact wafer (except for P/N 101565ED – plastic casing)
- Mounting hole diameter: 3/8"
- Lug size: 0.07" • Shaft size: 0.46" x 0.25"

101565 : Shaft size: 1.16" x 0.25"

101573ED

SALE

Includes: Washer and nut

Part No.	Mfr. Cross Ref. No.*	Poles	Position	Pricing		
				1	10	100
101531ED	RS0261	1	12	$1.39	$1.25	$1.12
101573ED	RS022	2	6	1.35	1.15	.90
101565ED	RS023	3	4	1.95	1.59	1.25
101557ED	RS024	4	3	1.09	.93	.69

* Manufacturer Cross Reference number and manufacturer may vary

More @ www.Jameco.com

See our website for more switches and a selection of Rotary Knobs.
A perfect match for our Rotary Switches above.

Slotted Optical Switch

- Type N package
- Input diode: forward voltage (V_F) – 1.60V (I_F=10mA); reverse current (I_R) – 100µA (V_R = 3.0V)
- Output phototransistor: breakdown voltage ($V_{BR\ CEO}$) = 30V min.; collector-emitter dark current (I_{CEO}) – 100nA (V_{CE} = 5V)
- Coupled: saturation voltage (V_{SAT}) – 0.40V (I_F = 10mA; I_C=100µA) gap unblocked

SALE

Part No.	Product No.	1	10	100
189481ED	OPB660N	$1.99	$1.79	$1.59

12-Button Telephone Keypads

- White plastic
- 8-pin .100" header
- Tactile type keypad
- Contact rating: 12VDC @ 20mA
- Contact resistance: 200Ω max.
- Life test: 1,000,000 cycles per key
- Size: 2.8"L x 2.2"W x 0.6"H

SALE

153488ED

Part No.	Description	1	10	100
190561ED	Numeric keypad	$8.75	$7.45	$5.59
153488ED	Alpha numeric keypad ..	9.49	8.55	7.69

16-Button Numeric Keypad

- 4 x 4 matrix keypad
- 8-position solder pad
- Contact rating: 24VDC @ 20mA
- Contact resistance: 200Ω max.
- Life test: 1,000,000 life cycles per key
- Size: 3.0"L x 2.8"W x 0.6"H

Part No.	Description	1	10	100
169244ED	Numeric keypad	$7.95	$6.95	$6.25

16-Button Indoor/Outdoor Keypads

- 9-pin 0.100" headers
- Fully sealed snap-dome contact
- For indoor or outdoor use
- Contact rating: 24VDC @ 10mA resistive
- Life test: 3,000,000 cycles per key
- Compatible with MOS, TTL and DTL (10Ω max.)
- Recommended connector: P/N 103190ED header and 100765ED pin
- Size (housing): 4.7"W x 1.7"H x 0.4"T

152063ED

✳ Prepackaged: please order in increments of 10 or 100

Part No.	Description	1	10	100
152063ED	4x4 matrix keypad	$14.95	$13.49	$11.95
103190ED	Header housing (10-pin)	42	.39	.36
100765ED	Header pin (10 per pack)	✳	.11	.09

Click Action Basic Precision Switches

HIGHLY ®

- 3 terminals: common; normal closed; normal open
- Dielectric strength: 1000VAC 50-60Hz for 1 min.
- Insulation resistance: 100MΩ min. (@ 500VDC)
- Type: NO-NC-common

159599ED   **159572ED**   **159581ED**

Part Number	Product Number	Description	Rating	Contact Resistance (initial)	Service Life		Terminals Type	Agency Approval	Pricing		
					Mechanically	Electrically			1	10	100
159599ED	SS0505A	Subminiature	5A @ 125VAC	30milliΩ max.	10 million	200,000	.127" quick discon.	UL	$3.25	$2.92	$2.59
159572ED	VS10N051C	Micro (T90S1D12-12)	10A @ 250VAC	15milliΩ max.	10 million	100,000	.183" quick discon.	UL/CSA	2.89	2.54	2.28
159581ED	VS10N021C2	Micro	10A @ 250VAC	15milliΩ max.	10 million	100,000	.183" quick discon.	UL/CSA	2.45	2.25	1.99

Color Code Legend
SALE REFURBISHED CLOSEOUT

Small High-Current PC Mount Relays

An inexpensive means of switching loads up to 30 amps. While these small, low-cost relays are designed primarily for the appliance industry and the heating, air conditioning and ventilation markets, they are also well suited for automotive load management and other applications.

- Meets UL class F insulation standard
- Electrical life expectancy is 100,000 operations at rated loads
- Mechanical life expectancy is 10 million operations
- Dielectric strength: 1,500Vrms (between contact and coil)

A **B** **C**

Fig. 1 **Fig. 2** **Fig. 3**

104926ED: Open frame relay

Part Number	Mfr. Cross Ref. No.	Potter & Brumfield Cross Reference	Fig.	Contact Form	Coil Voltage	Coil (Ohms)	Contact Voltage	Contact Current	Pins	L x W x H (in.)	Pricing 1	10	50	100
174449ED	LU-5	T81H5D215	A1	SPDT	5VDC	125	120VAC/24VDC	1A/2A	6	.60 x .40 x .45	$1.89	$1.75	$1.63	$1.55
104926ED	733SPDT12VDC*	T90N5D12-12	B2	SPDT	12VDC	155	240VAC/28VDC	20A/10A	6	1.2 x .90 x .63	2.49	2.24	2.01	1.81
172937ED	JS1-12V	T72M5D121-12	C3	SPDT	12VDC	400	125VAC/24VDC	10A/5A	5	.85 x .62 x .63	1.15	1.09	.95	.79

* Manufacturer and Manaufacturer Cross Ref. number may vary
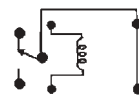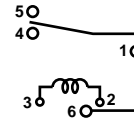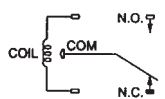
DIP Relays

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- Logic control levels
- Moisture resistant
- Compatible with IC sockets
- Long life with reliable operation
- Compact design/ construction
- Excellent for PCB applications

Aromat **FUJITSU** **CLARE** **EGE**

106462ED **99901ED** **136549ED**
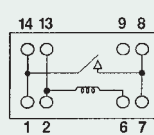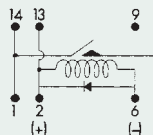
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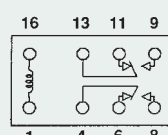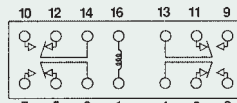
Fig. 1 **Fig. 2** **Fig. 3**
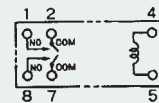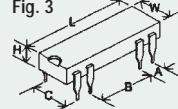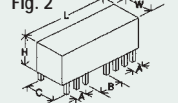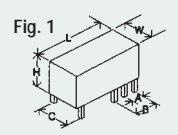
Part Number	Mfr. Cross Ref. No.	Manufacturer	Contact Schem.	Contact Form	Coil Voltage	Coil Ohms	Contact Voltage	Contact Current	Pins	Jameco Socket	Fig.	Size L x W x H (in.)	Leads A x B x C (in.)	Pricing 1	10	50	100
106462ED	201A05	Excel Cell Elect.	1	SPST-NO	5VDC	500	100VDC	0.5A	8	37161	3	.78 x .25 x .20	.10 x .40 x .30	$2.25	$1.91	$1.60	$1.29
138430ED	2D1A05	Excel Cell Elect.	2	SPST-NO	5VDC	500	100VDC	0.5A	8	37161	3	.77 x .30 x .22	.10 x .40 x .30	2.29	1.95	1.65	1.34
106471ED	201A12	Excel Cell Elect.	1	SPST-NO	12VDC	1000	100VDC	0.5A	8	37161	3	.78 x .25 x .20	.10 x .40 x .30	2.49	2.10	1.77	1.45
192760ED	5MBU-5	Fujitsu	5	DPST-NO	5VDC	35	240VAC/24VDC	5A	8	—	1	1.13 x .50 x .98	.17 x .76 x .28	1.95	1.75	1.49	1.25
173913ED	AZ831-2C-5DSE	American Zettler	3	DPDT	5VDC	125	125VAC/100VDC	.5A/1.25A	8	37401	1	.79 x .38 x .44	.18 x .28 x .29	2.35	2.15	1.69	1.25
139977ED	RSB5S	Shin Mei	3	DPDT	5VDC	125	120VAC/30VDC	1A/2A	8	37372	1	.79 x .39 x .37	.20 x .40 x .30	2.49	2.25	1.95	1.75
99338ED	LM12C00	Clare	3	DPDT	6VDC	71	125VAC/100VDC	2A	8	37372	1	.79 x .40 x .43	.20 x .40 x .30	2.49	2.25	1.79	1.35
99901ED	LX200D00	Clare	3	DPDT	12VDC	720	125VAC/100VDC	2A	8	37372	1	.79 x .40 x .30	.20 x .40 x .30	6.95	6.25	5.63	4.49
136549ED	DS4E-M-DC5V*	Aromat	4	4PDT	5VDC	62.5	125VAC/30VDC	.6A/2A	14	112299	2	1.40 x .40 x .36	.20 x .30 x .30	5.49	4.95	4.45	4.05
176313ED	DS4E-M-DC12V	Aromat	4	4PDT	12VDC	360	125VAC/30VDC	.6A/2A	14	112299	2	1.40 x .40 x .36	.20 x .30 x .30	7.95	7.15	6.45	5.79

* Manufacturer and Manaufacturer Cross Ref. number may vary

Potter & Brumfield Type Plastic Enclosed Construction Relay

- Dielectric strength: 500VDC (between contact and coil)
- Operating temperature: -35°C to +85°C
- Normally open (NO), normally closed (NC)
- Terminal type: quick connect
- Size: 1.1"L x 1.1"W x 1.0"H

RESISTOR IF USED

VF4 Type Relays

Part Number	Mfr. Cross Ref. No.	P&B Cross Reference	Contact Form	Coil Voltage	Coil Ohms	Contact Voltage	Contact Current	Pins	Pricing 1	10	50	100
148582ED	LD12F	VF485F11	SPDT	12VDC	78	12VDC	40A	5	$ 2.49	$2.25	$1.95	$1.75

VF4 Type Socket with Coil Diode

- For use with P/N 148582ED (above)
- Contact voltage/current: 12V/20A
- 12 AWG: 2 black and 1 blue wire
- 18 AWG: 1 black and 1 red wire
- 7.5" wire
- Diode coil suppression

SALE

Part Number	Mfr. Cross Ref. Number	Description	Pricing 1	10	50	100
170624ED	RSDO3	Relay socket with coil diode (for P/N 148582ED; above)	$2.35	$2.15	$1.69	$1.25

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Our complete selection of Relays and relay Sockets is at Jameco.com.

General Purpose Relays

- DPDT - 8-pins

Pin Type Terminals – Series 78
- Contact voltage: 240VAC

Pin Type Terminals – Series 250
- Contact rating: 120/240VAC, 28VDC @ 10A
- Ambient temp. operating: -10°C to +50°C
- Size: 1.4"L x 1.4"W x 2.7"H

139740ED

172718ED

141145ED
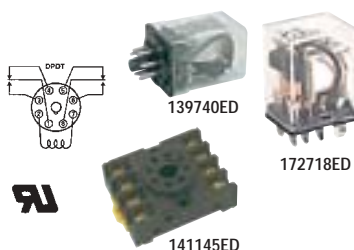
Part Number	Mfr. Cross Ref. Number	P&B Cross Reference	Coil Voltage	Pricing 1	10	50
			Series 78			
172718ED	SCL12DPDT	K10-11D15-R	12VDC	$4.99	$4.49	$3.99
			Series 250			
139766ED	BTA1-2C-12VDC	R02-11D10-12	12VDC	$9.49	$8.55	$7.69
139740ED	BTA1-2C-120VAC	R02-11A10-120	120VAC	9.95	8.79	7.99

Part No.	Voltage	Current	Pins	Size (lbs.)	1	10	50
				Series 250 Sockets			
141145ED	250VAC	20 amps	8	2.0"L x 1.6"W x 0.8"H	$3.99	$3.65	$3.59
141153ED	250VAC	20 amps	11	2.0"L x 1.7"W x 1.2"H	5.45	5.10	4.49

Rayex General Purpose Relays

Potter and Brumfield Type LB2 Series
- DPDT - 8-pins
- Contact rating: 240VAC/30VDC @ 12A
- Mechanical life: 10,000,000 operations
- Electrical life: 100,000 operations min. at rated load

Part Number	Product Number	P & B Cross Reference	Coil Voltage	Pricing 1	10	50	100
172718ED	SCL12DPDT	K10-11D15-12	12VDC	$4.99	$4.49	$3.99	$3.59

Rayex LB2 Socket
- DIN rail snap socket for LB2 relays

Part Number	Product Number	P & B Cross Reference	Pins	Pricing 1	10	50
175530ED	PTF08AA	27E895	8	$5.95	$5.39	$4.85

More @ www.Jameco.com

See our website for a selection of Power PCB Relays.

DC/AC Solid State Relay

- Pins: 4
- Screw terminal with hardware
- Photo isolation
- Metal mounting base
- Control voltage: 3-32VDC
- Contact style: SPST
- Contact voltage: 240VAC
- Contact current: 25A
- Terminal type: screw terminal - UL approved
- Dimensions: 2.3"L x 01.7"W x 1.1"H

Part No.	Mfr. Cross Ref. No.	1	10	50	100
162368ED	ESR51024-025* ..	$21.95	$19.79	$17.79	$16.05

*Manufacturer may vary

DC/DC Solid State Relay

- Screw terminal with hardware
- Photo isolation
- Metal mounting base
- Control voltage: 3-32VDC
- Contact style: SPST
- Contact voltage: 60VDC
- Contact current: 4A
- Terminal type: solder lead - Pins: 4
- Dimensions: 1.5"L x 0.3"W x 0.9"H

Part No.	Mfr. Cross Ref. No.	1	10	50	100
175222ED	KF0604D*	$11.95	$11.25	$10.25	$9.22

*Manufacturer may vary

SHARP. Solid State Relays

DC to AC
- Effective on-state current: 2A rms
- Input voltage: 1.2V @ 20mA
- Output: 265VAC @ 2.5A
- Operating frequency: 45-65Hz
- Isolation volt: 3000Vrms
- UL/CSA approved
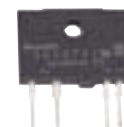
SALE

Part No.	Product No.	1	10	50	100
164996ED	S202TA1	$4.95	$4.49	$4.05	$3.65

Sensors

Ultrasonic Sensor Sets

- Use for motion or distance sensing
- Frequency: 40kHz ±1.0kHz
- Aluminum case

136653ED:
Transmit/Receive Set
- Capacitance: 2000pF ±30%
- Case size: 0.47"H x 0.62" Dia.
- Transmitter: bandwidth 4.0kHz/112dB, sound pressure level 119dB/40±1.0kHz
- Lead length/spacing: 0.39"
- Receiver: bandwidth 3.5kHz @ -71dB, min. sensitivity 65dB/40±1.0kHz (0dB vs 1V μbar) R=3.9kΩ

136653ED

139491ED:
Transmit/Receive Set
- Capacitance: 2000pF ±20%
- Lead length/spacing: 0.28"
- Transmitter: bandwidth 5.0kHz/100dB, sound pressure level 112dB/40 ±1.0kHz
- Receiver: bandwidth 5.0kHz @ -75dB, min. sensitivity 67dB/40 ±1.0kHz (0dB vs 1V μbar) R=3.9kΩ
- Case size: 0.30"H x 0.43" Dia.

139491ED

Part No.	Mfr. Cross Ref. No.	1	10	50
136653ED	40TR16F	$6.95	$6.29	$5.65
139491ED	40TR12B	6.95	6.29	5.65

Fujikura -1.1 to 2.5 PSI Pressure Sensor

- Measurable pressure range: -1.1 to 2.5 PSI
- Maximum load pressure: twice of rated pressure
- Volt-level output
- Operating voltage: 5V @ <10mA
- Maximum excitation voltage: 8V
- Pressure type: gauge pressure
- Pressure media: non-corrosive gas
- On-chip amplification and temp. compensations
- Pre-calibration of offset voltage and span
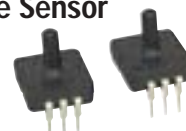
SALE

Part No.	Product No.	1	10	100
196103ED	XFPN-025-KPGRNW1	$24.95	$18.75	$13.15

Fujikura 0 to 5 PSI Pressure Sensor

- Maximum load pressure: 10 PSI
- Output voltage: 0 – 4.5V
- Operating voltage: 5V @ 10mA
- Pressure type: gauge pressure
- Pressure media: non-corrosive gas
- Accuracy: ±0.125 PSI at 25°C; ±0.250 PSI at -10 to 65°C
- High level output, on-chip signal conditioned, temperature compensated, and calibrated

Part No.	Product No.	1	10	100
173657ED	XFPN-050-KPGT1 ...	$15.95	$14.35	$12.95

More Modules and Boards @ www.Jameco.com

See our website for Jameco's selection of Digital I/O Modules and Mounting Boards.

Color Code Legend
SALE REFURBISHED CLOSEOUT

Color Code Legend
SALE REFURBISHED CLOSEOUT
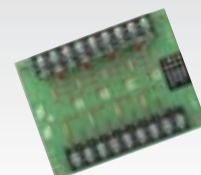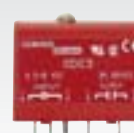
.100" IDC Socket Connectors

Double Row Polarized IDC Socket Connectors

32563ED

- Mates with 2 rows of .025"Sq. or Dia. posts on patterns of .100" centers (male headers, see below) • Current rating: 1A
- Industry standard IDC socket (plastic)
- Temperature rating: -55°C to +105°C
- Use P/N 73251ED, pg 50: insulation displacement connection crimper for these connectors

Part No.	Mfr. Cross Ref. No.	Contacts	1	10	100	1000
32491ED	S10	10	$.29	$.25	$.19	$.15
32563ED	S26	26	.45	.35	.29	.19
32643ED	S34	34	.49	.39	.35	.25
32678ED	S40	40	.55	.45	.39	.29
32707ED	S50	50	.65	.55	.45	.35

DINKLE .197" (5mm) Terminal Blocks

- Materials: housing: polyimide; solder: tin plated brass
- Lead spacing: .197" • Wire range: 12-24 AWG
- Contact rating: 300V @ 10A • PC mount
- Insulation resistance: 500MΩ or more @ 500V
- Modular housing: end-to-end stackability
- Terminals interlocking with same series

DT Series

DT128 Type (Side Entry)

- Block width & height: .40" x .55"

Fig. 1   99397ED

Part No.	Fig.	Term.	Block Lgth	1	10	100	1000
99426ED	1	2	0.4"	$.72	$.55	$.44	$.40
99397ED	1	3	0.6"	.99	.89	.79	.59

EK500 Series

160784ED   161066ED

Fig. 2

Fig. 3

EK500V Type (Side Entry)

- Block width & height: .40" x .55"

Part No.	Fig.	Term.	Block Lgth	1	10	100	1000
160784ED	2	2	0.4"	$.75	$.65	$.50	$.43

EK500A Type (45° Entry)

- Block width & height: .48" x .61"

Part No.	Fig.	Term.	Block Lgth	1	10	100	1000
161066ED	3	2	0.4"	$.75	$.65	$.49	$.39

OST .197" (5mm) Vertical Terminal Blocks

Side Entry

- Rated voltage (UL): 250V
- Rated current: 15A
- Wire size: 14-22 AWG
- PCB hole diameter: .050"
- Spacing: .197" • Terminal block: copper zinc

189675

Part No.	Term.	Size (L"xW"xH")	1	10	100	1000
189675ED	2	.42 x .30 x .37	$.79	$.71	$.64	$.58
189667ED	3	.61 x .30 x .37	.89	.80	.72	.61

More @ www.Jameco.com

A complete selection of Terminal Blocks can be bought on our website.

OST .200" (5.08mm) Vertical Terminal Blocks

Side Entry

- Rated voltage (UL): 250V
- Rated current: 15A
- Wire size: 14-22 AWG
- PCB hole diameter: .050"
- Spacing: .200"
- Insulating material: polyimide
- Terminal block: copper zinc
- Wire guard: copper nickel

SALE   152346ED

Part No.	Term.	Size (L"xW"xH")	1	10	100	1000
152346ED	2	.42 x .35 x .49	$.65	$.55	$.45	$.39
152354ED	3	.62 x .35 x .49	.51	.46	.38	.32

KULKA® 601 GP Series Double Row Terminal Block

- Base: general purpose phenolic; 150°C
- Screws: #6-32, binder head, phillips-slot
- Terminals: brass plated • Height: .50"
- Width: 1.12" • .437" (11 mm) centers
- 1100Vrms; 20A ratings; for 14-16 AWG wires
- Open block design • UL/CSA/CE approved

Part Number	Product Number	Poles	Dimensions A"	B"	1	10	50
188701ED	601GP12	12	5.69	6.00	$5.49	$4.95	$3.95

.156" (3.9mm) Center Crimp Pin

- Use with .156 housings (below)
- Material: brass/tin plated
- Pin wire gauge: 22-26 AWG
- Prepackaged: order in increments of 10, 100, 1000

Part No.	Mfr. Cross Ref. No.	10	100	1000
78318ED	AMP501T	$.11	$.08	$.07

.156" (3.9mm) Center Housing Connectors

- Common to many power supplies carried by Jameco. Some power supplies (pgs 21-23) may require multiple connectors
- Housing material: nylon 66, UL94V-2
- Use with crimp pins, 78318ED, above

✳ Prepackaged: order in increments of 10, 100 or 1000

104731ED

Part No.	Mfr. Cross Ref. No.	Pins	1	10	100	1000
104715ED	LCH4	4	✳	$.22	$.15	$.12
104731ED	LCH6	6	.33	.30	.24	.15

.100" Non-Polarized Connector Housings and Crimp Pins

100802ED   Single Row

100765ED

- Mates with .025" square post on pattern of .100" centers (male headers, see above)
- Current rating: 1A • Pin material: brass/tin plated
- Pin wire gauge: 22-26 AWG • Plastic
- Temperature rating: -55°C to +105°C
- Prepackaged: order in increments of 10, 100 or 1000

Part No.	Mfr. Cross Ref. No.	Cont.	10	100	1000
100811ED	SCH2	2	$.23	$.21	$.17
157382ED	SCH3	3	.24	.22	.18
100802ED	SCH4 **SALE**	4	.25	.23	.19
100765ED	FCH1	Female pin	.11	.09	.06
145357ED	MCH1	Male pin	.15	.135	.12

.100" and 2mm Shorting Blocks

- Mates to .025" square posts on .100" centers
- Shorting socket jumper to address or code strip line plugs
- Mate with male headers (below)
- Pin material: phosphor bronze
- Prepackaged: order in increments of 10, 100 or 1000

22023ED (open)   112432ED (closed)

Open: open on top to allow for a test point while
Closed: closed – functionally they are the same

Part No.	Description	10	100	1000
22023ED	Top open, black	$.12	$.09	$.06
19140ED	Top closed, black	.12	.09	.06
112441ED	Top closed, blue	.12	.09	.06

.100" Male Headers (Gold)

109567ED   139563ED

109575ED   103270ED

- Snap apart to fit your application
- Solder to PC boards for instant plug-in access via shorting blocks, above • Contact area: gold
- Contact material: phosphor bronze
- Current rating: 1 amp
- Temp. range: -55°C to +120°C
- Insulation material: glass filled polyester
- .025" square posts on a .100" x .100" matrix
- Use with crimp connector housing, left

✳ Prepackaged: order in increments of 10, 100 or 1000

.100" Straight Male Headers
Single Row

109575ED

Part No.	Mfr. Cross Ref. No.	Contacts	1	10	100	1000
108337ED	SMH02	2	✳	$.16	$.14	$.13
109575ED	SMH03	3	✳	.17	.15	.135
103341ED	SMH30	30	.35	.31	.28	.25
160881ED	SMH40	40	.49	.44	.40	.36

.100" Straight Male Headers
Double Row

67820ED

Part No.	Mfr. Cross Ref. No.	Contacts	1	10	100	1000
115027ED	923804DS	4	✳	$.10	$.09	$.07
115035ED	923806DS	6	✳	.18	.16	.14
109516ED	923808DS	8	✳	.18	.16	.14
67820ED	923810DS	10	✳	.18	.16	.14
109567ED	923816DS	16	.55	.49	.45	.39
117196ED	923880DS	80	.90	.80	.75	.65

.100" Right Angle Male Headers
Single Row

Part No.	Mfr. Cross Ref. No.	Contacts	1	10	100	1000
103270ED	RMH36	36	$.75	$.64	$.58	$.41

.100" Right Angle Male Headers
Double Row

Part No.	Mfr. Cross Ref. No.	Contacts	1	10	100	1000
139563ED	923880DR	80	$1.35	$1.19	$1.09	$.99

.100" Low-Profile Straight Male Shrouded Headers

- Features: UL recognized, CSA certified; .025" square post mates with sockets on .100" x .100" grid
- Contact: phosphor bronze, gold plated
- Material: glass filled polyester, gray, UL94V-0
- Use with IDC socket connectors, pg 46

67811ED

Part No.	Description	1	10	100	1000
67811ED	10-pin	$.39	$.35	$.32	$.28
68371ED	26-pin	.54	.42	.35	.21

.100" (2.5mm) Female Header Receptacles

- Gold plated contacts
- 0.1" contact center

Vertical Mount (Top Entry)

Part No.	Contacts	Type	1	10	100	500
163862ED	34	Double row	$1.19	$1.05	$.92	$.79
111704ED	40	Double (Tin)	.. 1.29	1.15	.99	.89

ARIES Electronics (Europe) Low Profile ZIF Sockets

Provides a low cost solution for ZIF test socket requirements. It has a height of only .319" (8.10mm), and even with the handle in open position measures just .554"(14.07mm).

102752ED

- Strong rigid cast metal cam provides uniform action over entire contact area
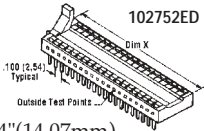
Part No.	Aries No.	Pins	Dim X	1	10	100
102744ED	28-526	28	1.64" ...	$5.49	$4.99	$4.49
102752ED	40-526	40	2.24"	6.95	6.39	5.75

ARIES Electronics (Europe) Universal ZIF Sockets

- Solder directly to PCB or plug directly into IC socket
- Screw mounting holes for reliable operation
- Accepts .300" to .600" IC centers x .1" spacing

103991ED

Part No.	Aries No.	Pins	1	10	100
103991ED	24-6554-10	24	$7.49	$6.79	$5.99
104002ED	28-6554-10	28	8.45	7.39	7.15
104029ED	40-6554-10	40	11.25	9.80	9.45

PLCC Solder Tail Sockets

- Solder tail allows through-hole board patterns in .100" grid
- Accepts JEDEC type "A" plastic leaded chip (0.05" centers)
- Thru-hole lead length: .125"
- Body height: .375"

Part No.	Mfr. Cross Ref. No.	Pins	1	10	50	100
71618ED	G1P444	44 ...	$1.15	$.99	$.81	$.69

More @ www.Jameco.com
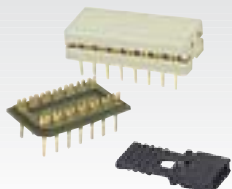
See our website for other Shorting Blocks and Plugs.

Solder Tail Low Profile Sockets

Dual Wipe

- Material: beryllium copper or phosphor bronze
- Contact current: 1A
- Tin-plated contacts and tails
- Contact resistance: less than 5mΩ
- Dielectric withstanding voltage: 300Vrms
- Insulation resistance: greater than 1000MΩ
- Insulator: glass-filled polyester or glass-filled polyphenylene sulfide • Sleeve material: brass
- Thru-hole lead lgth: .140" (A)
- Body height: .188" (B)
- **Prepackaged: order in increments of 10, 100 or 1000**

112221ED

Dual wipe
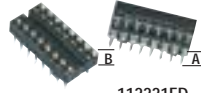
Part No.	Mfr. Cross Ref. No.	Pins	Width (in.)	10	100	1000
112205ED	8LPD	8	0.3 ..	$.09	$.08	$.07
112213ED	14LPD	14	0.3	.10	.075	.05
112221ED	16LPD	16	0.3	.13	.115	.095
112248ED	20LPD	20	0.3	.17	.14	.11
112299ED	28SLPD	28	0.3	.21	.19	.17
112310ED	40LPD	40	0.6	.26	.23	.19

Wire Wrap Sockets

- Contact plating/leads: gold (**WW**) or tin (**TWW**); Dual Wipe
- Material: beryllium copper or phosphor bronze
- Contact current: 1A
- Contact resistance: less than 5mΩ
- Dielectric withstanding voltage: 300Vrms
- Insulation resistance: greater than 1000MΩ
- Insulator: glass-filled polyester or glass-filled polyphenylene sulfide
- Thru-hole lead length: .438" (L)
- Sleeve material: brass • Body height: .300" (A)
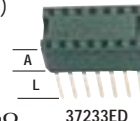
37233ED

Gold (WW)

Part No.	Mfr. Cross Ref. No.	Pins	Width (in.)	1	10	100	500
37233ED	14WW2	14	0.3	$1.49	$1.35	$1.19	$1.09
37479ED	16WW2	16	0.3 ..	1.75	1.59	1.43	1.29
38674ED	20WW2	20	0.3 ..	2.25	1.99	1.82	1.65

Tin (TWW)

Part No.	Mfr. Cross Ref. No.	Pins	Width (in.)	1	10	100	500
37217ED	14TWW2	14	0.3	$1.15	$1.03	$.93	$.84
37436ED	16TWW2	16	0.3	.99	.89	.73	.66

Machine Tooled Solder Tail Low Profile Sockets

- Contact plating: gold
- Tin-plated leads
- Contact current: 3A
- Multiple contact elements
- Material: beryllium copper or phosphor bronze
- Contact resistance: less than 5mΩ
- Dielectric withstanding voltage: 300Vrms
- Insulation resistance: greater than 1000MΩ
- Insulator: glass-filled polyester or glass-filled polyphenylene sulfide • Sleeve material: brass
- Thru-hole lead length: .177" (A) • Body ht.: .117" (B)
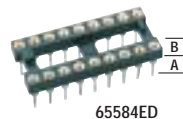
65584ED

Part No.	Mfr. Cross Ref. No.	Pins	Width (in.)	1	10	100	1000
51625ED	8MLP	8	0.3 ..	$.25	$.22	$.19	$.17
37196ED	14MLP	14	0.3	.42	.38	.33	.30
37401ED	16MLP	16	0.3	.47	.43	.37	.34
65584ED	18MLP	18	0.3	.55	.49	.43	.39
41136ED	40MLP	40	0.6	1.19	1.05	.79	.69

Machine Tooled Wire Wrap Sockets

- Contact plating: gold
- Tin-plated leads
- Contact current: 3A
- Contact resistance: less than 5mΩ
- Dielectric withstanding voltage: 300Vrms
- Material: beryllium copper or phosphor bronze
- Insulation resistance: greater than 1000MΩ
- Insulator: glass-filled polyester or glass-filled polyphenylene sulfide • Sleeve material: brass
- Thru-hole lead length: .515" (L)
- Body height: .115" (A)
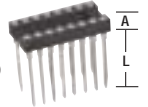
37410ED

Part No.	Mfr. Cross Ref. No.	Pins	Width (in.)	1	10	100	500
62050ED	14MSWW3	14	0.3 ..	$.93	$.80	$.67	$.60
37410ED	16MSWW3	16	0.3 ..	1.09	.93	.78	.69
38631ED	20MSWW3	20	0.3 ..	1.33	1.14	.95	.86
40336ED	28MSWW3	28	0.6 ..	1.79	1.55	1.29	1.17
94502ED	40MSWW3	40	0.6 ..	2.66	2.28	1.90	1.71

4-40 Mounting Screw Hardware for D-Subminiature Connectors

4-40 x .187" Jack Screws

✱Prepackaged: order in increments of 10, 100 or 1000

108986ED

Part No.	Description	1	10	100	1000
172603ED	.315"L jack screw .... ✱	$.14	$.11	$.10	
102816ED	.435"L jack screw	.49	.46	.41	.37
108986ED	.515"L jack screw	.55	.50	.45	.40

4-40 Screw Sets

102808ED   **16547ED**

102808ED: 4-40 screw (.30"L) and retainer set
16547ED: 4-40 x .187" jack screw (.31"L thread), washer, lock washer and nut set

- Prepackaged: order in increments of 10, 100 or 1000

Part No.	Description	10	100	1000
102808ED	Screw/retainer set	$.35	$.30	$.20
16547ED	Screw/nut set	.31	.25	.17

D-Subminiature Connector Hoods

15085ED Plastic   **25620ED Metallized**
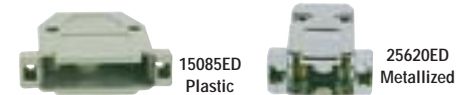
- Use with D-sub solder cup and housing style connectors

D Series: plastic hood with strain relief (gray)
MD Series: metal coated plastic hood w/ strain relief
Includes: Hardware

Part No.	Mfr. Cross Ref. No.	Conn.	1	10	100	1000
15721ED	DB9H	9-pin	$.49	$.45	$.39	$.35
25620ED	MDB9H	9-pin	.59	.49	.39	.35
147740ED	DB9MH	9-pin	1.45	1.29	1.15	.99
15018ED	DA15H	15-pin	.49	.45	.40	.35
25566ED	MDA15H	15-pin	.56	.44	.36	.31
15085ED	DB25H	25-pin	.45	.39	.35	.32
25603ED	MDB25H	25-pin	.59	.49	.42	.35

D-Subminiature Connectors

- Metal shells are tin-plated for improved EMI/RFI shielding
- Insulation resistance: minimum 1000MΩ at 500VDC
- Dielectric withstanding voltage: 1000V (one minute)
- Current rating: 1A to 5A
- High temperature thermoplastic
- Insulation material: PBT, UL rated 94V-0

Right Angle PC Mount Connectors
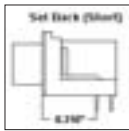
0.318" Set Back

Set Back (Short)

- Short style
- Lead length: .138"
- Lead spacing: .115"
- Shell: metal
- Current rating: 1A

15149ED

SALE

Part No.	Mfr. Cross Ref. No.	Cont.	Gender	1	10	100	500
104942ED	DB9P318	9	M	$.55	$.50	$.40	$.30
104951ED	DB9S318	9	F	.60	.55	.49	.45
71124ED	DA15P318	15	M	.69	.59	.55	.49
77956ED	DA15S318	15	F	.79	.69	.65	.45
15149ED	DB25P318	25	M	.79	.65	.55	.42
15181ED	DB25S318	25	F	.89	.79	.72	.65

IDC Ribbon Cable Connectors

- Current rating: 1 amp
- Temp range: -55°C to +120°C
- Insulation material: glass-filled polyester
- Contact material: phosphor bronze
- Terminates with standard D-type connectors

12431ED

Part No.	Mfr. Cross Ref. No.	Cont.	Gen.	Shell	1	10	100
109225ED	MDB9P†	9	M	metal	$1.35	$1.25	$1.09
12503ED	CDB9P	9	M	plastic	2.49	1.79	1.59
109217ED	MDB9S†	9	F	metal	1.49	1.19	1.05
12520ED	CDB9S	9	F	plastic	2.59	2.35	2.09
115983ED	MDB25P	25	M	metal	1.85	1.69	1.45
12335ED	CDB25P	25	M	plastic	1.89	1.69	1.29
115975ED	MDB25S	25	F	metal	1.85	1.65	1.39
12431ED	CDB25S	25	F	plastic	1.95	1.79	1.39

†109225ED/109217ED: require flat cable with .0625" centers

Solder-Cup Connectors

15114ED Front   15114ED Back

- Compatible with 24 AWG communications and 22 AWG solid cable, pg 49

Part No.	Contacts	Gen.	Shell	1	10	100	1000
15747ED	9	M	metal	$.56	$.44	$.36	$.24
15771ED	9	F	metal	.59	.49	.44	.31
15034ED	15	M	metal	.59	.49	.42	.29
15051ED	15	F	metal	.59	.49	.39	.24
15114ED	25	M	metal	.99	.89	.79	.71
15157ED	25	F	metal	.89	.80	.69	.61

Straight PC Mount Connectors

- Non-removable contacts
- 125 Vrms
- Current rating: 5 amps
- Operating temp.: -65°F to +250°F

15780ED   15122ED

Part No.	Mfr. Cross Ref. No.	Cont.	Gen.	Shell	1	10	100
111691ED	DB9PPCB	9	M	metal	$.55	$.45	$.32
15780ED	DB9SPCB	9	F	metal	.55	.45	.32
176760ED	DA15PPCB	15	M	metal	.49	.39	.27
176751ED	DA15SPCB	15	F	metal	.49	.44	.39
15122ED	DB25PPCB	25	M	metal	.65	.59	.42
15165ED	DB25SPCB	25	F	metal	.74	.55	.31

Insertion/Extraction Tool

- Exchangeable tips
- For male & female crimp pins

Part No.	Description	1	10	100
19094ED	Insertion/extraction tool	$3.49	$2.99	$2.59

PANAVISE IDC Bench Press and Cable Cutter

27182ED

27174ED

Designed for low to medium volume mass termination of various IDC connectors on flat ribbon cable.

Part No.	Prod. No.	Description	Wt. (lbs.)	1	10
27174ED	M505	Bench press	7.0	$179.95	$159.95

M505 Accessories

27182ED	M507	Cable cutter	0.9	$66.95	$61.95
27203ED	M510	Base plate	0.5	26.95	24.29

171-Pc. Solderless Terminal Kit

170 Terminals and Connectors!

- Clear, hinged plastic box
- Use crimping tool P/N 72995ED, pg 50

Qty.	Description	Wire Gauge	Blade Size	Qty.	Description	Wire Gauge	Blade Size
10	Male spade	16-22	1/4"	10	Ring term.	14-16	#10
10	Male spade	14-16	1/4"	5	Ring term.	10-12	#10
10	Fem. spade	16-22	1/4"	5	Ring term.	10-12	#14
10	Fem. spade	14-16	1/4"	10	Spade term.	16-22	#6
10	Ring term.	16-22	#6	10	Spade term.	16-22	#8
10	Ring term.	16-22	#8	10	Spade term.	14-16	#10
10	Ring term.	16-14	#10	10	Butt connec.	16-22	–
15	Ring term.	14-16	#6	10	Butt connec.	14-16	–
10	Ring term.	14-16	#8	5	Butt connec.	10-12	–

Part No.	Description	1	10	25
10989ED	Terminal kit	$8.95	$7.95	$7.25

Discover more @ www.Jameco.com

Additional D-Subminiature Connectors on our website.

Heat Guns, Cable Ties and Accessories

Heat Gun/Stripper

Dual-Setting

- Use with heat shrink material
- Works with spot-dry paint, plaster, spackle cure adhesives   • UL listed
- Will remove adhesive-applied tiles and linoleum without chipping   • Dual heat setting: 600°F/1100°F
- Thaw pipes, frozen locks and loosen rusted bolts

Part No.	Description	1	10	25
76865ED	Heat gun	$39.95	$35.95	$31.95

Weller® 250-Watt, 3-Setting Industrial Heat Gun

- 750°F to 800°F hot air at nozzle; 3-position switch; hot-off-cool
- Designed for assembly and repair applications such as shrink tubing and vinyl, epoxy curing/drying/cooling
- Long-life heater and fan components   • ESD safe
- 120VAC @ 60Hz   • 3-wire grounded plug; 6' cord

Part No.	Product No.	Description	1	10
191943ED	6966C	Heat gun	$119.95	$107.95

PVC Heat Shrink Tubing

- 2:1 uniform shrink ratio
- Color: black
- Shrink temp: 125°C
- Sold in 10' and 100' increments
- UL/CSA approved

182748ED

182772ED

Part No.	Dia. before (mm)	10 ft.	100 ft.
184721ED	.12" (3)	$1.19	$10.50
182730ED	.16" (4)	1.39	12.50
182748ED	.20" (5)	1.45	13.00
182756ED	.24" (6)	1.49	13.50
182764ED	.31" (8)	1.79	16.00
182772ED	.43" (11)	2.80	19.00
182781ED	.59" (15)	3.50	30.00

Our complete selection is @ www.Jameco.com

Other Cable Tools and Accessories available online.

Nylon Cable Ties

Weather Resistant

104141ED

UV Resistant

- Contain Carbonate A for greater resistance to ultra violet rays in outdoor use   • Color: black
- *Sold in increments of 100s or 1000s*

Part No.	Tensile Strength (lbs.)	Dimensions (L" x W")	100	1000
104141ED	18	4.0 x 0.10	$.044	$.029
190781ED	40	8.0 x 0.13	.085	.065
190801ED	40	13.0 x 0.14	.113	.088

Cable Tie Assortments

145701ED

- Tensile strength: 18-50 lbs.

145701ED:
1000 pcs. (4"L); 10 colors

150412ED:
500 pcs. (4"L); 300 pcs. (8"L); 50 pcs. (11"L), 5 colors

145701ED (closeup)

Part No.	Weight (lbs.)	1	10	50
145701ED	0.7	$9.49	$8.49	$7.39
150412ED	1.7	13.95	11.49	9.95

Solid Hook-Up Wire – 22 AWG

- Temperature range: -55°C to +105°C
- Passes UL VW-1 flame test
- MIL-W-16878D type B
- Weight: 100' (0.3 lbs.); 1000' (3.8 lbs.)
- For use with breadboards such as the JE20 series, pg 51

36839ED

Part No.	Mfr. Cross Ref. No.	Color	1000 ft.
36775ED	122BE/K	Blue	$29.95
36804ED	122BK/K	Black	35.95
36839ED	122G/K	Green	29.95
36863ED	122R/K	Red	39.99
36927ED	122Y/K	Yellow	29.95

Gray Flat Ribbon Cable – 28 AWG

- Single edge red stripe for pin 1 orientation
- Center spacing: 0.05"
- 28 AWG (7 x 36)
- Insulation: polyvinyl chloride (PVC)
- Voltage rating: 300V
- Temperature rating: -20°C to +80°C
- Stranded copper wire
- **Prepackaged and priced in increments of 10', 25', 100' or 500'**

103481ED

Part No.	Mfr. Cross Ref. No.	Cond.	10 ft.	25 ft.	100 ft.	500 ft.
135538ED	171-10	10	$1.49	$3.20	$11.50	$47.50
37760ED	171-25	25	3.90	8.75	25.00	110.00
37920ED	171-40	40	7.40	17.50	48.00	215.00
37954ED	171-50	50	6.75	14.50	49.00	210.00

Nylon Cable Tie Mount

- Screw tab & cradle mount adhesive
- 1.1" square adhesive 4-way cable tie used with 0.2"W max
- *Sold in increments of 10, 100 or 1000*

Part No.	Description	10	100	1000
71394ED	4-way cable tie	$.23	$.19	$.14

Multicolor Flat Ribbon Cable – 28 AWG

- Standard 10-color repeat sequence
- Center spacing: 0.05"
- Voltage rating: 300V
- Temperature rating: -20°C to +80°C
- Stranded copper wire • 28 AWG (7 x 36)
- **Prepackaged and priced in increments of 10', 25', 100' or 500'**

105718ED

Part No.	Mfr. Cross Ref. No.	Cond.	10 ft.	25 ft.	100 ft.	500 ft.
112547ED	28RC10	10	$1.95	$4.50	$17.50	$70.00
105697ED	28RC25	25	6.29	14.25	49.95	219.95
105726ED	28RC40	40	8.69	19.553	69.49	299.95

Twisted Pair Cable – 24 AWG

- PVC insulation
- Use for hook up wire
- Stranded tinned wire (7 x 32)
- 80C° • 300 V
- Reduced EMI
- Weight: 100' 0.5 lbs.
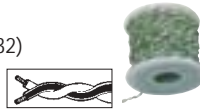
Part No.	Mfr. Cross Ref. No.	Color	1000 ft.
105806ED	224GW/K	Green/white	$44.95

Category 5 Network Cable

- 100MHz • 8C • Gray
- 4 twisted pairs • UTP
- Insulation: polyethylene
- Nom. OD.: 189' • Nom. impedance: 100Ω

118130ED

Solid: uses modular plug P/N 119343ED, pg 64
Stranded: uses modular plug P/N 79281ED, pg 64

- **Prepackaged and priced in increments of 25' or 100'**
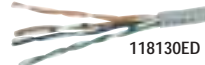
24 AWG UTP Category 5 – 100MHz

Part No.	Description	25 ft.	100 ft.	1000 ft.
118130ED	Stranded(7/32 AWG)	$5.95	$19.35	$164.50

24 AWG UTP Category 5 Enhanced – 350MHz

Part No.	Description	25 ft.	100 ft.	1000 ft.
176225ED	Solid (gray)	$5.00	$17.00	$100.00
176233ED	Stranded (gray)	6.00	21.00	180.00

Multiconductor Shielded Computer Communication Cable – 24 AWG

- Stranded copper wire, multi-colored insulation
- Insulated with polyvinyl chloride (PVC)
- Voltage rating: 300V
- Color: gray • Drain wire
- 24 AWG (7 x 32 AWG) • Shielded 100% w/ aluminum mylar

31843ED

- **Prepackaged and priced in increments of 25' or 100'**
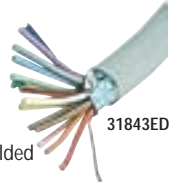
Part No.	Mfr. Cross Ref. No.	Cond.	Dia.	25 ft.	100 ft.	1000 ft.
31860ED	SC4	4	0.20"	$4.75	$17.00	$140.00
31878ED	SC9	9	0.23"	11.25	35.00	270.00
31843ED	SC15	15	0.28"	14.75	49.00	430.00
31851ED	SC25	25	0.37"	14.75	71.00	590.00

Kynar™ Wire Wrap Wire – 30 AWG

- Assorted color coded insulation
- Used for prototyping
- Color coded Kynar™ (Polyvindene Fluoride) insulation
- Silver plated copper (solid conductor)
- Temperature: -40°C to +125°C
- See pg 35 for sockets
- Wire wrap tools, see website • UL 1423
- Passes UL VW-1 flame test

22550ED

Part No.	Color	Wt. (lbs.)	1000 ft.
22550ED	Blue	0.6	$29.95
22584ED	Black	0.6	29.95
22648ED	Red	0.6	29.95
22613ED	Green	0.6	29.95

16 More @ www.Jameco.com

See our website for 300V Stranded Hook-Up Wire in all colors.

IC Programmers and Erasers

EPROM Erasers and Accessories

- Erases all EPROMs

66042ED:
- Erases 1 chip in 7 minutes
- Conductive foam liner eliminates static build-up
- UV intensity: 6.5mW/cm²
- One-year warranty

66042ED

UVP

Requires: Four AA batteries (not included), P/N 32627ED (below)

15712ED:
- Erases 1 chip in 15 minutes or 8 chips in 21 minutes
- Maintains constant exposure distance of 1"
- Conductive foam liner eliminates static build-up
- Built-in safety lock to prevent UV exposure
- Complete with holding tray for 8 chips
- UV intensity: 6.8mW/cm² • One-year warranty

SALE

15712ED

Part No.	Description	1	10	25
66042ED	Portable eraser	$64.95	$58.95	$52.95
15712ED	8-chip eraser	109.95	104.95	99.95
34382ED	Lamp for 15712ED	34.95	34.95	34.95
13864ED	Foam (12"x24"x0.25")	7.95	6.95	6.15
32627ED	'AA' Ni-Cad battery	1.95	1.75	1.49

512k Two Socket USB Interface E(E)PROM / Flash Programmer

Compact and portable this stand-alone E(E)PROM & flash programmer interfaces with your PC through the USB port.

NEW

- Programs EPROMs 27C/LV (64 – 080); EEPROMs 28C(256-040); Flash EPROMs 29C(256 040)/29EE/LE (512-020/ 28F (256-020A)/ 29F (010-040) and more
- 2 sockets for master/slave operation
- IC parameters are adjustable such as programming algorithm, Vpp voltage, and impulse width
- Supports file formats binary and machine code, INTEL HEX, Motorola HEX
- Supports Windows® 95/98/NT/2000/ME/XP
- Size: 6.3"L x 4.3"W x 1.8"H

Includes: USB cable, 12VDC @ 500mA pwr. adapter; and CD-ROM

FUNCTIONS
Stand Alone Mode:
- Functions   - Blank check
- Type   - Program   - Verify
PC-Based Mode:
- Type   - Read   - Blank
- Check   - Program   - Process
- Verify   - Erase   - Disk
- Help   - Parameter

Part No.	Description	1	5
220636ED	Leaper-3C	$299.95	$284.95

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microEngineering Labs

"PICProto" Prototyping Boards

- High quality blank prototyping boards for PICmicro microcontrollers
- Holds microcontroller, 5V regulator, oscillator, capacitors and DB9-25 connector
- Double-sided board with plated-through holes

132644ED   176891ED   132636ED   132652ED

Includes: Documentation sheet with schematic, suggested parts and placement

PICProto 18, 18L: For all 18-pin PICs including PIC16C52, 54, 56, 58, 554, 558, 61, 620, 621, 622, 71, 710, 711, 712, 715, 716, 84, 16CE623, 624, 625, 16F627, 628, 83, and 84

Part No.	Description	Size (L" x W")	1	10
132644ED	PICProto 18	3.0 x 1.5	**$9.95**	**$8.95**
176891ED	PICProto 18L	3.6 x 4.1	**19.95**	**17.95**

PICProto 3: For the 28-pin PIC16C62, 63, 642, 66, 72, 76, 773, 16F73, 76, 870, 872, 873, 876, 18C242, and 252

132636ED	PICProto 3	3.0 x 3.0	**$14.95**	**$13.49**

PICProto 64: For the 40-pin PIC16C64, 65, 662, 67, 74, 77, 774, 16F74, 77, 871, 874, 18C422, and 452

132652ED	PICProto 64	4.0 x 3.0	**$16.95**	**$14.95**

microEngineering Labs

EPIC Plus PICmicro Programmer

The EPIC Plus Programmer quickly and easily programs the PIC12Cxxx, 12CExxx, 16C505, 16C55x, 6xx, 7xx, 84, 9xx, 16CE62x, 16F62X, 7x, 8x, 87x, 14C000, 17C7xx, 18CXxx microcontrollers from Microchip. The basic programmer includes an 18-pin socket for programming 8, 14 and 18-pin PICmicro MCUs.

- Simple installation with parallel port (printer) interface
- Interactive software for Windows and DOS
- Command line operation for automated, non-interactive programming

Requires: Two 9V batteries or AC adapter (below) **Includes:** Assembler software

Part No.	Description	1	10
132679ED	EPIC Plus PICmicro programmer	**$59.95**	**$53.95**
162317ED	AC wall adapter (16VDC/500mA, details on pg 27)	**7.95**	**6.95**
67256ED	6' DB25 cable (details on pg 56)	**6.45**	**5.79**

microEngineering Labs

PICBasic and PICBasic Pro Compiler

Converts your BASIC programs into files that can be programmed directly into a PICmicro MCU.

- Compatible with most PICmicro MCU programmers including EPIC plus
- I2C instructions to access external serial EEPROMs
- Use in DOS or Windows (includes Windows editor/DE software)

132661ED: PICBasic Compiler

- Expanded BASIC Stamp I compatible instruction set
- Supports PC12C67x, PIC14Cxxx, PIC16C55x, 66x, 7xx,84, 92x, and PIC16CF8xx microcontrollers   • May use up to 2k of code space

150543ED: PICBasic Pro Compiler

- Direct and library routine access to any pin or register
- Automation page boundary handling past 2k • Bit, byte, word arrays
- Real If…Then…Else…Endif   • Hierarchical expression handling
- Built-in LCD support   • MPLAB/MPASM/ICE compatibility
- Supports 12C5xx, 12C67x, 12CE67x, 14C000, 16C5x, 16C55x, 6xx, 7xx, 84, 92x, 16CE62x, 16F62x, 7x, 8x, 87x, 17Cxxx, and 18Cxxx microcontrollers

132661ED

Part No.	Description	1	10
132661ED	PICBasic compiler	**$99.95**	**$89.95**
150543ED	PICBasic Pro compiler	**249.95**	**224.95**

microEngineering Labs

LAB-X1 Experimenter's Module Board

A pre-assembled experimenter's platform, providing an assembled testbed containing the circuitry commonly used with PICmicro microcontrollers. Projects may be created using the LAB-X1, including calculator, voltmeter, LCD backpack, tone dialer, and RC servo controller.

- 40-pin ZIF socket for PICmicro MCU (not included, PIC16F877-20/P recommended)   • Jumper selectable oscillator from 4MHz to 20MH
- Reset button   • 16 switch keypad   • 3 potentiometers   • LED bargraph
- 2 lines x 20 characters LCD module   • Speaker   • 2 RC servo connectors
- RS232 interface   • Socket for RS485 interface (device not included)
- Socket for real time clock/serial analog to digital converter (devices not included)
- EPIC in-circuit programming connector   • Prototyping area for additional circuit
- Wiring for microchip in-circuit debug connector

Requires: AC adapter (below)

Part No.	Description	1	10
169113ED	LAB-X1 Experimenter Board	**$199.95**	**$189.95**
176882ED	PIC16F877-20/P microcontroller (pg 11)	**9.49**	**8.49**
127976ED	AC adapter (details on web)	**4.75**	**4.25**

Circuit Boards and Accessories

Photo Etch™ Printed Circuit Kit

Generate your own 1:1 artwork. Then use the patented Fast Neg film process to make a photo negative and sensitize and expose a blank copper board. Finish by developing and etching. No camera or darkroom is required.

DATAK

Part No.	Prod. No.	Description	1	10
16731ED	12-750*	Printed circuit kit	**$39.95**	**$36.95**

*Shipped via UPS ground to continental U.S. only

DATAK

Photo Etch Accessories

SALE

16758ED   16723ED   70261ED

Part No.	Prod. No.	Description	1	10
16758ED	ER8*	Neg. resist dev. 16 oz	$5.95	$5.39
16723ED	ER18	TINNIT™ 1 pint	6.95	5.95
70261ED	ER71*	Photo resist liquid	8.95	7.95

*Shipped via UPS ground to continental U.S. only

DATAK

Pre-Sensitized Circuit Boards & Developer

- Pre-coated circuit board
- Size: 3.0"L x 4.0"W x 1/16"T
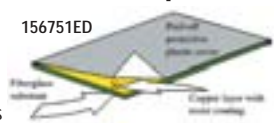
156751ED

Includes: Instructions

Part No.	Description	1	10	25
156751ED	Single sided	**$4.95**	**$4.49**	**$3.95**
156742ED	Double sided	**6.49**	**5.85**	**5.25**
156734ED*	4 oz. Pos. developer	**6.95**	**5.95**	**4.95**

*Shipped via UPS ground to continental U.S. only

DATAK

Dry Concentrated Etchant

Part No.	Prod. No.	Description	1	10	25
70201ED	ER3	One pint	**$3.95**	**$3.49**	**$2.95**

Copper-Plated Blank Circuit Boards

Ideal for hobbyists and students doing prototypes of circuits. Copper plating on board for either single-sided or double-sided boards.

- 1.6mm thickness

Fig. 2   Fig. 3

Fig. 1

Part No.	Mfr. Cross Ref. No.	Description	Size (L" x W")	Fig.	Wt. (lbs.)	1	10	50
169279ED	PCBS3X6	Single side	3.0 x 6.0	3	0.1	**$3.49**	**$3.15**	**$2.85**
169287ED	PCBS6X6	Single side	6.0 x 6.0	2	0.2	**4.95**	**4.49**	**3.95**
169295ED	PCBS12X12	Single side	12.0 x 12.0	1	0.5	**13.95**	**12.56**	**11.30**
169308ED	PCBD3X6	Double side	3.0 x 6.0	3	0.1	**4.95**	**4.45**	**3.95**
169316ED	PCBD6X6	Double side	6.0 x 6.0	2	0.2	**7.95**	**7.15**	**6.45**
169324ED	PCBD12X12	Double side	12.0 x 12.0	1	0.7	**17.95**	**15.95**	**14.49**

Solderless Breadboards

20757ED **20773ED** **20790ED** **20811ED**

20600ED

20669ED **20722ED**

These long-lasting solderless breadboards feature screen-printed color coordinates suitable for many types of digital and analog prototyping and circuit design. Larger models feature a heavy-duty aluminum backing with binding posts. Use Jameco's AC/DC breadboard power supply, P/N 77681ED (right).

- Accepts most electronic components, including integrated circuits and transistors for digital and/or analog circuitry • 0.1" hole spacing
- Pins are identified by numbered rows and columns • Ideal for high frequency and low noise circuits
- Low static, plastic body – CMOS safe • Use to breadboard and debug circuit designs
- Nickel-plated clips designed to withstand up to 5,000 insertion cycles
- Breadboard strips connect together to form larger working areas • One-year warranty
- Components are easily interconnected using 20-28 AWG wire (P/N 19289ED & 20079ED, right)
- Some models feature heavy-duty aluminum backings (JE24, JE27)

Attention Educators! Buy jumper wire (right) in bulk and SAVE! (see Hook-up Wire on pg 49)

Part Number	Product Number	Terminal Strips	Bus Strips	Contact Points	Binding Posts	Breadboard Size L x W (In.)	Baseplate Size L x W (In.)	Weight (lbs.)	1	10	50	100
20600ED	JE21	1	2	400	0	3.3 x 2.1	—	0.13	$4.95	$4.49	$3.95	$3.49
20669ED	JE22	1	0	630	0	6.5 x 1.4	—	0.20	5.49	4.95	4.49	3.95
20722ED	JE23	1	2	830	0	6.5 x 4.0	6.5 x 2.1	0.30	8.95	7.95	7.25	6.55
20757ED	JE24	2	1	1,360	2	6.5 x 3.1	8.5 x 4.0	0.60	12.95	11.95	10.95	9.95
20773ED	JE25	2	4	1,660	3	6.5 x 4.3	8.5 x 5.1	0.80	18.95	16.95	14.95	13.95
20790ED	JE26	3	5	2,390	4	6.9 x 5.8	9.1 x 6.9	1.10	25.95	23.39	21.05	18.95
20811ED	JE27	4	7	3,220	4	7.3 x 7.5	9.5 x 8.3	1.40	31.95	29.95	27.95	25.95

Digital Design Lab

- **Two 7-Segment Displays (digit height: 0.3")** • One-year warranty

Solderless Breadboard
- Interconnected nickel-plated tie points, fitting all DIP sizes and all components with AWG #22-30 (0.3-0.8mm) solid leads • 1580 tie points

DC Power Supplies
- DC supplies equipped with short circuit protection
- Variable DC power: 0 to +15V & 0 to -15V @ 0.5A
- Fixed power supply: ±5VDC @ 1.0A

Function Generator (5 ranges)
- Frequency range: 1Hz–10Hz, 10Hz–100Hz, 100Hz–1kHz, 1kHz–10kHz, 10kHz–100kHz
- Sine wave output: 0–8 Vp-p variable • Triangle wave output: 6Vp-p fixed
- Square wave output: ±5V fixed • DCV digital multimeter

Includes: Power cord and manual

International 115/220VAC Switchable

Our most popular digital lab!

Part No.	Description	Size (W" x D" x H")	Weight (lbs.)	1	10	25
75838ED	Digital lab	10.6 x 13.3 x 5.0	8.1 .... $276.95		$249.95	$226.95

Digital-Analog Design Lab

Solderless Breadboard
- 2712 interconnected nickel-plated tie points, fitting all DIP sizes and all components with AWG #22-30 (0.3-0.8mm) solid leads

DC Power Supplies
- Variable DC output: 0 to +15V & 0 to -15V @ 500mA; Fixed DC output: +5VDC, 1A; -5VDC, 300mA • Input power: 120/220VAC @ 50-60Hz (switchable)

Function Generator
- Frequency ranges: 1Hz–10Hz, 10Hz–100Hz, 100Hz–1kHz, 1kHz–10kHz, 10kHz–100kHz
- Sine wave output: 0–8 Vpp variable • Triangle wave output: 0–6 Vpp variable
- Square wave output: 0–8 Vpp variable

International 120/220VAC Switchable

Other features:
- 2 variable resistors: VR1=1kΩ, VR2=100kΩ • 8 data switches • 2.5" dia. 8Ω, 25W speaker
- 2 pulse switches (2 sets of outputs: $\overline{A}$, A, $\overline{B}$, B) • 2 banana sockets, 2 BNC jacks • One-year warranty
- Two 7-segment LED displays (digit height: 0.3") • 8 red LEDs with separate input terminals

Includes: Power cord and manual

Part No.	Description	Size (W" x D" x H")	Weight (lbs.)	1	10	25
136266ED	Digital-analog lab	12.8 x 9.8 x 3.7	8.5 .... $379.95		$341.99	$307.79

Wire Jumper Kit (350 pcs.)

- 25 each of lengths 0.1" through 5.0" (14 sizes)
- 350 assorted lengths in 13 colors
- Pre-stripped/preformed 22 AWG solid wire jumpers

19289ED

19289ED: 350-piece wire jumper kit
- Handy, durable, clear plastic case

20079ED: 350-piece refill for 19289ED
- Case not included

SALE

Part No.	Description	1	10	50	100
19289ED	Wire jumper kit ..	$15.95	$14.39	$12.95	$11.65
20079ED	Refill for 19289ED .	9.99	8.99	7.99	7.25

Reinforced Jumper Wires

- 24 AWG-300 volts
- Reinforced pin ends for durability
- 10 pack assortment: 2 each yellow, white, red, black & blue

Part Number	Mfr. Cross Ref. No.	Length (mm / inch)	1	10	100
126341ED	JW100	100 / 3.94 ..	$4.95	$4.49	$4.05

AC/DC Power Supply

Output Specifications:
+5VDC @ 1A, -5V @ 300mA fixed;
0 to +15VDC @ 500mA variable,
0 to - 15VDC @ 300mA variable;
12-6-0-6-12 tapped VAC, 300mA fixed
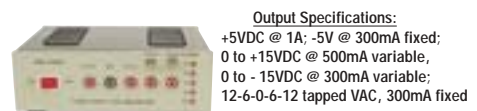
International 120/220VAC Switchable

With built-in short-proof regulated power supplies.
- Input power: 120/220VAC @ 50-60Hz (switchable)
- Indicator lamps and power fuses
- Just plug-in and start to use
- Compact and lightweight • Color: beige
- For both digital and analog circuits
- Compatible with test leads P/N 77841ED, pg 57
- Size: 7.4"W x 5.5"D x 2.6"H
- Weight: 5.5 lbs. • One-year warranty

Part No.	Description	1	10	25
77681ED	Power supply	$119.95	$109.95	$99.95

Powered Project Board

- Solderless breadboard with 2420 tie points
- DC power supplies: +5V @ 1A; variable power 0 to +15VDC and 0 to -15VDC @ 500mA
- Back panel has ground terminal

International 120/220VAC Switchable

- Outputs are short-circuit protected
- Edge plate for non-DIP size components
- Input power: 120/220VAC @ 50-60Hz (switchable)
- Replacement fuse: P/N 103907ED, pg 41
- Power switch with light • One-year warranty
- Breadboard size: 7.4"L x 6.8"W
- Enclosure size: 9.8"L x 8.0"W x 2.6"H • Wt.: 6.8 lbs.

Includes: Power cord

Part No.	Description	1	10	25
136258ED	Powered breadboard ..	$99.95	$89.95	$87.95

SMD Surfboards @ www.Jameco.com

General Purpose Prototyping Boards

Select the prototype board that fits your needs from our comprehensive product listing. Prototyping boards with punched holes are convenient, economical tools for assembling circuit components and trying cost-effective alternatives to custom designs.

- 0.062" board thickness
- 0.1" hole spacing
- 0.08" pad size
- Plated through pads are double-sided
- PCB material epoxy glass

See pg 53 for PCB mounting enclosures and hardware (recommend P/N 106551ED)

21434ED

Board Outline

W
L
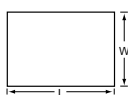
21477ED

Circuit Patterns
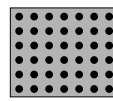
A
Holes Only
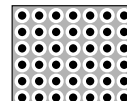
B
Pad Per Hole
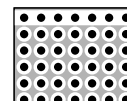
C
Power/Ground Perimeter Bus with Pad Per Hole
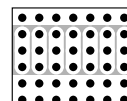
D
3 Hole Solder Pad and Bus

Part Number	Product Number	Size (W" x L")	Fits Enclosure(s) (see page 41)	Circuit Pattern	Hole Pads	# Holes x Dia. †	Power/Ground Busses	Connector I/O or Edge	# Mounting Holes x Dia.	Weight (lbs.)	Pricing			
											1	10	50	100
105099ED	2855PCB	1.60 x 2.70	18921	B	single-sided	288 x .035"	none	none	2 x .115"	.02	$4.95	$4.49	$3.95	$3.59
105101ED	5002PCB	1.50 x 3.50	11957	C	single-sided	365 x .038"	4	none	2 x .140"	.02	6.95	6.25	5.59	4.95
28177ED	PCB1	2.42 x 4.10	18913	C	plated through	674 x .040"	none	none	4 x .120"	.04	5.95	5.35	4.79	4.29
105136ED	2320PCB	3.30 x 4.50	11885	C	single-sided	1266 x .035"	4	none	4 x .140"	.06	9.95	8.95	7.95	6.95
105161ED	2852PCB	3.60 x 7.00	18905, 11973	B	single-sided	2225 x .035"	4	none	4 x .140"	.10	14.95	13.45	11.95	10.95
21434ED	JE401(8001)	4.50 x 6.50	18868	B/D	single-sided	2360 x .042"	2	none	none	.12	20.95	18.95	16.95	15.49
21451ED	JE405(8003)	4.50 x 6.50	18868	C	single-sided	2360 x .042"	1	none	none	.12	19.95	17.95	15.95	13.95
21477ED	JE407(8006)	5.00 x 13.25	N/A	B	plated through	6063 x .038"	none	none	8 x .120"	.28	39.95	35.29	33.49	31.85
105187ED	2507PCB	6.10 x 8.80	18876	C	single-sided	4771 x .035"	7	none	8 x .140"	.21	29.95	26.95	23.95	21.95
37621ED	169P84WE	8.50 x 17.0	N/A	A	drilled only	14448 x .042"	none	none	none	.53	23.95	22.75	21.59	20.49

† All 0.042" diameter hole boards use terminals T44, T49, and T421 (see website)

Hardware, Cabinet and Boxes

Aluminum & Brass Threaded Standoffs

Hex
.187"/.250" Female

Hex
.250" Male/Female

† Finish: Iridite (clear)[1] per MIL-C-5541-D; stainless steel[2]
✷ Prepackaged: order in increments of 10, 100 or 1000

.250"
.250" Hex Female
Thread
LENGTH

.250" Hex Female
4-40 Thread .250" Hex

Part Number	Metal†	Hex Length	Pricing			
			1	10	100	1000
139192ED	Alum[1]	.250"	✷	$.19	$.14	$.08
77500ED	Alum[1]	.375"	✷	.20	.15	.09
134762ED	Alum[1]	.437"	✷	.21	.18	.15
108370ED	Alum[1]	.500"	✷	.25	.17	.10
77518ED	Alum[1]	.625"	.45	.35	.23	.14
133604ED	Alum[1]	.750"	.41	.35	.18	.13

.187 Hex Male/Female
4-40 x .187" Jack Screws and Hex Nut

.187"
.187"
L

.515"
.187"

169931ED/172603ED/102816ED

108986ED

Part No.	Description (Brass[2])	1	10	100	1000
169931ED	.275"L jack screws	✷	$.15	$.13	$.11
172603ED	.315"L jack screws	✷	.17	.15	.14
102816ED	.435"L jack screws	.49	.46	.41	.37
108986ED	.515"L jack screws	.55	.50	.45	.40

Component Cabinet

85446ED

85454ED

81701ED
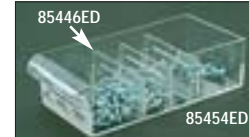
Drawer (85454ED) Divider (85446ED)

- Drawer can be divided into 4 sections (clear)
- Wall mountable cabinet (ABS black)
- Cabinet size: 6.0"D x 15"W x 7.9"H • Wt.: 4.7 lbs.
- Drawer size: 5.5"L x 2.7"W x 1.5"H
- Divider size: 2.4"L x 1.1"H

Includes: 20 clear plastic drawers, 20 dividers and 30 adhesive I.D. labels

✷ Prepackaged: order in increments of 10 or 100

Part No.	Description	1	10	50
81701ED	Component cabinet	$15.95	$13.95	$12.49
85454ED	Drawer for cabinet	.39	.35	.29
85446ED	Divider for drawer	✷	.19	.17

Plastic Fliptop Case for SMDs

128 Compartments for Surface Mount Components

- 8 rows x 16 columns grid
- Fliptop openings on each bin
- Color: gray
- Padded cover locks bins closed
- Perfect match to store P/N 156881ED SMD resistor assortment, pg 25
- Size: 11.0"L x 8.3"W x 1.7"Thick
- Weight: 1.4 lbs.

Includes: Labels for each bin

Part No.	Description	1	10
164267ED	SMD fliptop case	$49.95	$44.99

Bug Boxes

- Anti-static plastic
- Fits in bug cage (P/N 11332ED, see web)
- **11341ED:** stores sixty 8-pin or thirty 16-pin DIPs
- **11375ED:** Designed to store all types of components
- Box size: 4.9"L x 3.3"W x 0.6"H

11375ED

11341ED

Part No.	Description	1	10	100
11341ED	30 compartments..............	$3.95	$3.49	$3.15
11375ED	3 compartments/6 vertical & 6 horizontal dividers	4.49	3.95	3.49
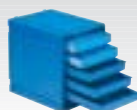
Wall Transformer Enclosures

- Enclosures include 3-prong power plug and cable strain relief
- Material: noryl
- Color: black
- Size: 3.4"H x 2.7"W x 2.3"D

115051ED

Part No.	Style	1	10	100
115051ED	Non-vented	$2.25	$1.95	$1.69
115043ED	Vented	2.25	1.95	1.69

Call for OEM Pricing

Same Day Shipping
99% In Stock

Prototype Builder Boards, Enclosures and Hardware

Call for additional OEM pricing.

The prototype builder boards on this page are specifically designed to fit into our ABS speedy boxes, die cast aluminum enclosures, aluminum boxes, metal cabinets and heavy-duty instrument cases shown in each grouping. These pre-cut boards have 2 or 4 mounting holes compatible with the PC board mounting hardware listed at the bottom, right (P/N 106551ED).

Board description: laminated glass epoxy 1/16" thick fire retardant per FR-4 specs. Copper-clad and solder mask one side. Drilled holes: .035" diameter on .080" square pad. Pads spaced on .10" x .10" grid.

*All boards sold individually; multiple boards shown

119618ED — 4 ea. Rubber Feet (see website)

18921ED   18913ED   18892ED   11885ED

11922ED (see website)   105110ED* (see website)   105161ED*

105099ED   105128ED   105152ED*   105136ED   105136ED*   105099ED   105152ED*

106551ED Hardware Set; 20 pcs. (used with all boards) (see details below)

See page 52 and website for hardware and knobs and more printed circuit board details

ABS Speedy Enclosures

Will not crack or split when drilled or punched. PCB mounting slots on all four sides. Lid has a lip for precision fit (adds 0.4" height). Complete with four screws and lid. All sizes below are for interior dimensions. • Color: black • ABS plastic

18913ED

Part No.	Product No.	Size (L x W x D)	Wt. (lbs.)	1	10	50	100
18921ED	H2855	3.1" x 2.0" x 0.9"	0.1	$2.99	$2.69	$2.45	$2.19
18913ED	H2853	4.9" x 2.5" x 1.5"	0.2	3.49	3.15	2.85	2.55
18892ED	H2851	6.0" x 3.5" x 1.9"	0.4	4.49	4.05	3.65	3.29
18905ED	H2852	7.5" x 4.3" x 2.3"	0.5	6.49	5.85	5.29	4.75

Printed Circuit Boards for Above Enclosures

• Power/ground, perimeter bus with pad per hole (*except P/N 105099ED) • Plated one side holes

105099ED

Part No.	Product No.	Size (L x W)	No. of Holes	1	10	50	100
105099ED*	2855PCB	2.7" x 1.6"	288	$4.95	$4.49	$3.95	$3.59
105128ED	2853PCB	4.4" x 2.0"	669	7.95	6.95	6.25	5.59
105152ED	2851PCB	5.5" x 3.1"	1450	9.95	8.95	7.95	6.95
105161ED	2852PCB	7.0" x 3.6"	2225	14.95	13.45	11.95	10.95

Die-Cast Aluminum Enclosures

High-quality die-cast aluminum cases come with channeled walls for easy PCB mounting. Ideal for RF circuits because the lid forms an effective screen against RFI interference. Made from aluminum, an excellent heat-sink, these cases are great for high temp circuits (up to 600°C). Complete with screws.
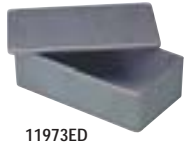
11973ED

Part No.	Product No.	Size (L x W x D)	Wt. (lbs.)	1	10	50	100
11957ED	B5002	3.9" x 2.0" x 1.0"	0.2	$5.95	$5.39	$4.85	$4.35
11965ED	B5004	4.7" x 2.4" x 1.6"	0.4	7.95	7.15	6.44	5.79
11973ED	B5006	7.5" x 4.3" x 2.4"	1.2	13.49	12.15	10.95	9.85

Printed Circuit Boards for Above Enclosures

• Power/ground, perimeter bus with pad per hole • Plated one side holes

105101ED

Part No.	Product No.	Size (L x W)	No. of Holes	1	10	50	100
105101ED	5002PCB	3.5" x 1.5"	365	$6.95	$6.25	$5.59	$4.95
105128ED	5004PCB	4.4" x 2.0"	669	7.95	6.95	6.25	5.59
105161ED	5006PCB	7.0" x 3.6"	2225	14.95	13.45	11.95	10.95

Aluminum Enclosures

Ideal boxes for those projects that get left lying around! Put them in an economical aluminum enclosure. The enclosure comes in two pieces which slide together.

11885ED

Part No.	Product No.	Size (L x W x D)	Wt. (lbs.)	1	10	50	100
11869ED	B2300	4.0" x 2.0" x 2.8"	0.2	$5.45	$4.69	$4.22	$3.79
11885ED	B2320	5.0" x 4.0" x 3.0"	0.4	7.89	6.15	5.55	4.99
11893ED	B2335	7.0" x 6.2" x 4.6"	0.8	10.95	9.25	8.29	7.49

Printed Circuit Boards for Above Enclosures

• Power/ground, perimeter bus w/ pad per hole • Ground Bus • Plated one side holes
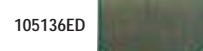
105136ED

Part No.	Product No.	Size (L x W)	No. of Holes	1	10	50	100
105110ED	2300PCB	3.4" x 2.4"	637	$7.95	$6.95	$6.25	$5.59
105136ED	2320PCB	4.5" x 3.3"	1266	9.95	8.95	7.95	6.95
105179ED	2335PCB	6.5" x 5.0"	2829	14.95	13.49	11.95	10.95

Metal Enclosures

High-quality metal enclosures are made to suit a large variety of electronics projects and applications. The base is made of aluminum. Slots are located on the sides of the cases for maximum cooling. Cases screw together and come with an attractive two-tone finish.
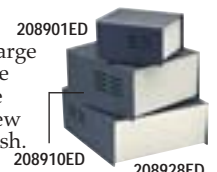
• Mounting screws and rubber feet included

208901ED   208910ED   208928ED

Part No.	Product No.	Size (L x W x D)	Wt. (lbs.)	1	10	50	100
208901ED	B2741A	4.0" x 3.3" x 2.2"	0.4	$6.49	$5.89	$5.29	$4.69
208910ED	B2743A	5.9" x 5.3" x 3.0"	0.8	7.99	7.19	6.49	5.89
208928ED	B2744A	7.3" x 6.3" x 2.8"	1.1	8.99	7.99	7.19	6.49

Printed Circuit Boards for Above Enclosures

• Power/ground, perimeter bus with pad per hole • Plated one side holes

Part No.	Product No.	Size (L x W)	No. of Holes	1	10	50	100
105110ED	2741PCB	3.4" x 2.4"	637	$7.95	$6.95	$6.25	$5.59
206578ED	2743PCB	4.7" x 4.5"	1869	6.99	6.29	5.69	5.19
105179ED	2744PCB	6.5" x 5.0"	2829	14.95	13.49	11.95	10.95

Heavy-Duty Instrument Cases

Both cases split apart for ease of working. Four plastic feet molded on unit. P/N 18876ED includes ventilation and speaker sound slots. • Color: gray

18868ED

Part No.	Mfr. Cross Ref. No.	Size (L x W x D)	Wt. (lbs.)	1	10	50	100
18868ED	H2505	7.9" x 6.3" x 2.5"	0.8	$7.39	$6.69	$5.99	$5.39
18876ED	H2507	10.0" x 7.5" x 3.1"	1.4	8.99	7.99	7.28	6.55

Printed Circuit Boards for Above Instrument Cases

• Power/ground, perimeter bus with pad per hole • Plated one side holes

Part No.	Product No.	Size (L x W)	Holes	1	10	50	100
105179ED	2505PCB	6.5" x 5.0"	2829	$14.95	$13.49	$11.95	$10.95
105187ED	2507PCB	8.8" x 6.1"	4771	29.95	26.95	23.95	21.95

ABS Enclosures w/ Clear Tops

Made of gray ABS plastic w/ clear polycarbonate top cover. Includes screws for mounting boards or electronic components, rubber gasket for a tight seal on your equipment & drilled holes for mounting.

141840ED

Part No.	Product No.	Size (L x W x D)	Wt. (lbs.)	1	10	50	100
141831ED	203C1	4.6" x 3.2" x 1.8"	0.3	$8.95	$8.09	$7.25	$6.55
141840ED	203D1	6.3" x 3.2" x 1.8"	0.4	9.95	8.99	8.09	7.25
141858ED	203F1	7.0" x 5.5" x 2.5"	0.8	11.95	10.79	9.69	8.69

Mounting Hardware for PC Boards

• 4 spacers, 8 screws and 8 washers

Part No.	Description	1	10	50	100
106551ED	PC board mounting hardware	$1.79	$1.65	$1.45	$1.35

3M Adhesive Rubber Feet

Fig. 1   Fig. 2

Part No.	Product No.	Type	Fig.	Pack	(W" x H")	1	10	50
142658ED	SJ5012BLKC	Black cylindrical	1	100	.50 x .14	$5.95	$5.35	$4.79
142682ED	SJ5018BLKC	Black tapered square	2	100	.50 x .23	8.95	7.95	6.95

More Enclosures & Accessories @ www.Jameco.com

Color Code Legend — SALE REFURBISHED CLOSEOUT

Omnidirectional Electret Condenser Microphone Cartridges

Applications:
- Tape recorders, intercoms, hearing aids, telephone and answering devices, sonic controlled toys and sensors
- Modems for computers
- Used for recording, testing, and monitoring

116505ED   160979ED   136573ED

Part No.	Type	Sensitivity	Impedance	Frequency (Hz)	Max. Op. Volt. (VDC)	Stand Op. Volt. (VDC)	Current (Max.)	Sensitivity Reduction	S/N Ratio	Terminals	Size (H x Dia.)	1	10	100	1000
116505ED	WM-54PC	-44 ±2dB	>2.2kΩ	20-16,000	10V	2.5V	0.6mA	-3dB @ 2V	>60dB	PC pin leads	.20" x .38"	$.75	$.67	$.55	$.49
160979ED	WM-64PKT	-44 ±3dB	>2.2kΩ	20-16,000	10V	2.0V	0.5mA	-3dB @ 1.5V	>58dB	PC pin leads	.10" x .24"	.79	.71	.64	.57
136573ED	WM-60PC	-54 ±2dB	>2.2kΩ	20-12,000	12V	4.5V	0.5mA	-3dB @ 3V	>40dB	PC pin leads	.30" x .38"	.53	.48	.43	.39
140986ED	CRM919	-64 ±3dB	1kΩ ±30%	20-10,000	12V	3.0V	0.8mA	-3dB @ 3V	>40dB	Solder pad	.90" x .39"	1.59	1.43	1.29	1.15

VHF High-Band Wireless Microphones

The perfect microphone for use with portable PA systems, video recording, and stage use. There is no cord to restrict your movements while providing clear crisp sound.

- T.H.D. (total harmonic distortion): less than 0.5% for crystal-clear sound
- Frequency stability: ±0.005% with Quartz controlled
- Maximum deviation range: ±15kHz with limiting compressor • Transmission range: 300m
- Carrier frequency range: 100Hz to 15kHz • S/N ratio: over 180dB @ 15kHz deviation

Includes: 0.25" mono jack patch cable, 9V battery and power supply

SALE

198248ED   198221ED

Part No.	Mfr. Cross Ref. No.	Description	Wt. (lbs.)	1	5
198248ED	WR101R	Handheld wireless microphone	2.1	$95.19	$86.55
198221ED	WR202H	Wireless microphone with clip-on headset	2.3	99.95	89.95

RCA Audio/Video Cables

SALE

139037ED   177527ED   225980ED
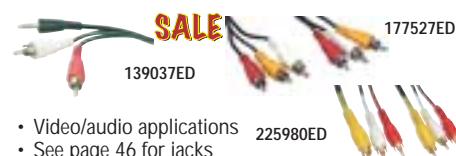
- Video/audio applications
- See page 46 for jacks

Part No.	Description	1	10	100
139037ED	5' Y: 1/8" M to 2 RCA M	$2.25	$1.89	$1.42
177527ED	6' 3 males to 3 males	2.99	2.69	2.45
29348ED	10' male to male (yellow)	1.69	1.49	1.25
225980ED	12' RCA cable gold plated	4.49	3.99	3.65
225998ED	20' RCA cable gold plated	7.99	7.19	6.45

More Cables @ Jameco.com

Speakers and Buzzers

Solar Products

Round Ferrite Speakers

- Pre-tinned speaker lugs
- Large magnet
- Anodized metal surfaces
- Paper diaphragm
- Braided copper voice coil leads

135589ED side   135589ED back

Part Number	Mfr. Cross Ref. No.	Dimensions (Dia." x D")	Input (W) Nom	Input (W) Max	Impedance (Ω)	Output SPL (dB)	Frequency Range (Hz)	Magnet Size (Dia." x H")	Pricing 1	10	100
135589ED	FE200	2.0 x 0.7	0.2	0.4	8	83	420 – 5000	1.3 x 0.4	$1.69	$1.45	$.99
177130ED	57RF07	2.2 x 0.8	0.5	0.9	45	88	500 – 8000	1.6 x 0.5	.54	.49	.43

Square Ferrite Speaker

- Pre-tinned speaker lugs
- Freq. range: 300-14000Hz
- Anodized metal surfaces
- Large magnet
- Paper diaphragm
- Braided copper voice coil leads

back   side

Part Number	Mfr. Cross Ref. No.	Dimensions (Dia." x D")	Input (W) Nom	Input (W) Max	Impedance (Ω)	Output SPL (dB)	Magnet Size (Dia." x H")	Pricing 1	10	100
99995ED	FEB204	2.6 x 0.9	3.0	4.0	4	95	1.8 x 0.5	$2.49	$2.25	$1.99

Buzzers

Fig.1   Fig.2   Fig.3   Fig.4

Magnetic Buzzer

Part Number	Fig.	Operating Volt. (VDC/mA)	Voltage Range (VDC)	Frequency (Hz)	Sound (dB)	Dimensions	Pricing 1	10	100	1000
207984ED	1	1.5/30	1.25 – 2	2300	75	.47"H x .38"Dia.	$2.49	$2.19	$1.99	$1.69
76064ED	1	5/30	4 – 7	2300	85	.35"H x .46"Dia.	2.99	2.69	2.45	2.19
207976ED	1	12/30	8 – 15	2300	85	.47"H x .38"Dia.	2.49	2.19	1.99	1.69

Piezo Buzzer SALE

Part Number	Fig.	Operating Volt. (VDC/mA)	Voltage Range (VDC)	Frequency (Hz)	Sound (dB)	Dimensions	Pricing 1	10	100	1000
138712ED	1	12/7	3 – 16	4000	80	.30"H x .54"Dia.	$2.19	$1.99	$1.59	$1.15
207896ED	2	12/120	6 – 15	2800	105	3.4"L x 2.2"W x 1.3"H	7.95	7.19	6.45	5.85
123537ED*	3	24/20	4 – 28	2900	80	1.4"H x 1.7"Dia.	4.19	3.79	3.39	2.95
76021ED	4	24/20	1.5 – 28	3200	95	1.0"H x 1.1"Dia.	4.79	4.35	3.89	3.49

* P/N 123537ED: dual tone

Photovoltaic Solar Panel

- Output connection: conductive film requiring pressure contact or use of 3M conductive epoxy
- Rated 9.5VDC open circuit; 9VDC @ 0.06A in direct sunlight
- Size: 6"L x 6"W x 0.1"T

Part No.	Description	1	10	50
141751ED	0.5W solar panel	$7.95	$7.19	$6.45

IOWA THIN FILM TECHNOLOGIES

Flexible Thin-Film Solar Panel

- For recharging NiCad, Nickel Metal Hydride and Gel-cell batteries
- Size: 4.5"L x 1.46"W

Positive (+) End   Negative (-) End
"Bus" (+) End of the Solar Panel   "Fingers"   "Open Ends lines" (-) End of the Solar Panel
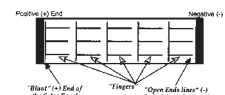
Part No.	Output	1	10	100
171061ED	3VDC @ 40-50mA	$9.19	$8.29	$7.49

velleman Solar Cells

The perfect solar cells for students and experimenters in these rugged cases.

- Connection: lead

215327ED

200205ED: 0.5V @ 800mA
200221ED: 2V @ 200mA
215319ED: 3V @ 100mA
215327ED: 6V @ 200mA
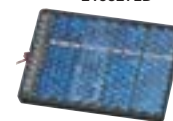
200221ED

Part No.	Product No.	Size (LxW)	1	10
200205ED	SOL2	2.6" x 3.7"	$8.99	$7.99
200221ED	SOL4	3.0" x 3.7"	8.99	7.99
215319ED	4-3.0-100	3.8" x 2.5"	14.29	12.89
215327ED	4-6.0-50	3.8" x 2.5"	15.79	14.39

Fume Extractors and Filters

Absorbs noxious lead fumes using activated-carbon filter and a high-efficiency fan

- Operate continuously providing filtered air
- Air flow: 115 CFM
- Compact size allows use on work bench with minimum space
- 120VAC, 60Hz, 22 watt
- On/off power switch
- Aerodynamic hood design for effective removal of solder fumes
- Noise: 49dB fan
- Fuse protected
- Static ground jack
- Removable carbon-impregnated filter
- One-year warranty

168268ED:
- High carbon plastic case
- Size: 8.5"W x 5.0"D x 8.0"H • Weight: 4.2 lbs.

120150ED: • Black anodized aluminum case
- Size: 6.4"W x 4.6"D x 7.9"H • Weight: 4.6 lbs.

Includes: Detachable power cord

Part No.	Description	1	10	25
168268ED	Fume ext. (ESD safe)	$59.95	$53.95	$49.95
120150ED	Fume extractor	58.95	52.95	47.79
127183ED	Replace. filters (2/pk) ..	10.95	9.95	8.95

Weller® 40-Watt Soldering Station

- Lighted on/off switch
- Adjustable power from 5 watts to 40 watts
- 40 watt,120V @ 60Hz
- Temperature is electronically controlled from 350° to 850°F
- Size: 5.5"L x 4.5"W x 3.5"H • Weight: 1.9 lbs.

Includes: ST3 1/8" screwdriver tip, soldering station and manual

Part No.	Prod. No.	Description	1	10
146595ED	WLC100	Soldering station ...	$49.95	$44.95

Weller® Soldering Tips

Replacement Tips for WLC100, WP25 & WP23

146608ED **146616ED** **146624ED**

Part No.	Prod. No.	Description	1	10
146608ED	ST1	Screwdrvr tip 1/16" ..	$5.95	$5.35
146616ED	ST3	Screwdrvr tip 1/8"	5.95	5.35
192145ED	ST6	Scrwdrvr tip .031"	5.25	4.75
146624ED	ST7	Conical tip 1/32"	5.95	4.95

Weller® Analog Soldering Station

- Innovative heater and sensor combination for quick heat-up and rapid temperature recovery
- Tip temperature offset capability which allows user to reset temperature readings to match tip size and style
- Wireless temperature lockout
- Auto power down after 90 minutes of inactivity
- Temperature range: 350°F to 850°F (177°C – 454°C)
- Temp. accuracy: ±90F (±5°C) • ESD safe
- Size: 5.9"L x 4.5"W x 3.6"H • Weight: 4.0 lbs.

Part No.	Product No.		1	10
217461ED	WES51	....	$115.95	$105.95

Weller® Soldering Tips

Replacement Tips for WES50

- Tip leakage: less than 2mV
- Tip to ground resistance: less than 2Ω
- Tips also used with WCC100 station
- Additional tips can be special ordered

16774ED **16782ED** **16803ED** **16811ED**
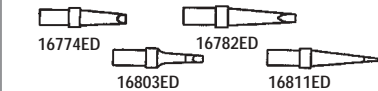
Part No.	Prod. No.	Description	1	10
16774ED	ETA	Screwdriver 1/16"	$6.95	$6.25
16782ED	ETJ	Long screwdriver 1/32"	6.95	6.25
16803ED	ETR	Narrow scrwdrvr 1/16" ...	6.95	6.25
16811ED	ETS	Long conical 1/64"	6.95	6.25

16 to 30-Watt Variable Soldering Iron, Stand & Sponge

116572ED:
- Length: 7.5"

36329ED:
- Black anodized steel base – 5.3"L x 3.3"W
- See below for replacement sponge (P/N 134631ED)
- Fits most soldering irons .85" diameter

116572ED **134631ED** **36329ED**

Includes: Sponge

Part No.	Description	1	10	100
116572ED	Soldering iron	$18.95	$17.09	$15.35
36329ED	Soldering stand	4.25	3.85	3.45
134631ED	Sponge (for 36329ED)	2.99	2.69	2.49
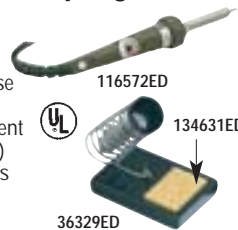
Weller® Professional 25-Watt & 35-Watt Soldering Irons

- Interchangeable heater elements
- Lightweight handle with cushioned grip
- Quick change knurled collar
- Length: 9" • 120VAC @ 60Hz

170587ED **192153ED**

Includes: Power cord & ST3 tip (left)

Part No.	Prod. No.	Description	1	10
170587ED	WP25	25W solder iron ..	$32.95	$31.35
192102ED	WP35	35W solder iron ...	39.95	35.95
192153ED	PH25	Solder iron stand ...	16.19	15.35

Economical, High-Performance Soldering Irons

High-quality soldering irons that are suitable for both professional and do-it-yourself applications.

- 25W, 40W, & 60W • Length: 9"
- 120VAC; 6' cord with 3-prong plug
- 226000ED (chisel, std.); 226018ED (conical, opt.) – tips for 224611ED/224602ED
- 226026ED (chisel, std.); 226034ED (conical opt.) – tips for 195223ED

Part No.	Product No.	1	10	25
224611ED	200PHG-25W	$7.95	$7.15	$6.45
224602ED	200PHG-40W	9.95	8.95	8.09
195223ED	200PHG-60W	13.95	12.49	12.11
226000ED	44-240517	.95	.85	.79
226018ED	44-240513	.95	.85	.79
226026ED	44-240617	1.95	1.79	1.59
226034ED	44-240603	1.95	1.79	1.59

SMD Tweezer Iron

- Maximum efficiency ceramic heating elements insures rapid heat-up and instant heat recovery
- Max. temp.: 760°F
- 120VAC
- Heater insulation exceeds 100MΩ
- Heater power consumption: 35W x 2

168410ED **168583ED**

Includes: 0.095" tip

Part No.	Description	1	10	25
168410ED	Tweezer iron	$59.95	$53.95	$48.95
168583ED	Tip .078"	11.95	10.79	9.69
168591ED	Tip .590"	12.95	11.69	10.49

Electric Desolder Pump

- Easily disassembled for cleaning
- One-hand operation
- Replacement tips available
- UL listed • Size: 10.5"L x1.0"Dia.

19254ED

Part No.	Description	1	10
19254ED	Electric desolder pump	$26.95	$23.95
19262ED	1 tip for 19254	4.95	4.49

One-Shot Desoldering Gun

This low maintenance desoldering gun with self-contained vacuum pump is perfect for desoldering through-hole components.

- Power consumption: 60W
- Interchangeable standard tips
- Zero static tip, 3 wire grounded
- Sensitive where CMOS protection is needed
- Quick release stainless solder collector
- Electronic temperature control
- Ergonomic, lightweight design
- 120VAC • One-year warranty
- Gun casing size: 7.0"L x 4.0"W • Weight: 2.2 lbs.

Includes: 1.0mm tip

Part No.	Description	1	10	25
129066ED	Desolder gun	$99.95	$89.95	$79.95
140214ED	"Y" replacement tip ..	10.95	9.95	8.95
134594ED	1.0mm replace. tip	8.95	7.95	7.19
134607ED	1.2mm replace. tip	8.95	7.95	7.19

PanaVise Electronic Work Center

- Circuit board holder, standard base, tray base mount, solder station, sponges and wire holder included
- Size: 8.5"W x 7.8"H
- Weight: 5.3 lbs.
- One-year warranty

Part No.	Description	1	5	10
27060ED	Electronic center	$74.95	$71.25	$66.95

Color Code Legend
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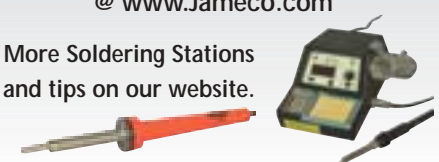
Analog Display Soldering Stations

Maintains a steady temperature using a cartridge heating element, providing a longer life for the solid soldering tip.

SMD Tip Below

- Electronic temperature control: 300°F to 850°F
- CMOS devices protected against voltage spikes
- Power consumption: 60W
- Weight: 4.1 lbs.
- Size: 4.3"W x 6.0"D x 3.4"H

Includes: One 1/16" tip

Part No.	Product No.	Description	1	10	25
114569ED	168-3C	Analog display station	$89.95	$79.95	$72.95
134640ED	SP815	Replacement sponge for P/N 114569ED	2.99	2.69	2.49

Desoldering & Soldering/Desoldering Stations

125508ED   125516ED   SALE

- Simple fine tune feature to select 300–850°F range
- Vacuum pump activated "on demand" using finger tip switch on desolder handle
- CMOS devices protected against voltage spikes
- Replacement sponge for P/N 125516ED – see above (P/N 134631ED)
- One-year warranty

125508ED:
Size: 9.2"L x 7.2"W x 3.6"H; Wt.: 13.1 lbs.
Includes: 3/64" conical tip and solder holder
125516ED/ 223853ED:
Size: 11.0"L x 10.0"W x 4.0"H; Wt.: 18.1 lbs.
Includes: 1/32" conical tip, solder holder, tip cleaner and tweezers
223853ED: Dual display of tip temperature with selector switch for C or F and read/set temperature

Special 5% Bundle Bonus
Complete digital solution for an ISO 9000 Soldering/Desoldering Station –
P/N 125508ED & 162456ED
Sold separately $439.90
Combined: P/N 207263ED
$407.95

Part No.	Product No.	Description	1	10	25
125508ED	968	Desoldering station	$299.95	$269.99	$242.99
125516ED	988	Soldering/desoldering station	399.95	359.99	323.99
223853ED	988D	Dual display soldering/desoldering	459.95	413.95	372.55
207271ED	TWZ60ESD	SMD tweezer iron w/ .078" tip	69.95	62.95	56.95
207221ED	D1A60A	Replacement desoldering iron	74.95	67.49	59.95
168583ED	46-060102	Tip .078" for P/N 207271ED	11.95	10.79	9.69
168591ED	46-060115	Tip .590" for P/N 207271ED	12.95	11.69	10.49

Temperature Controlled 45-Watt Soldering Station
Grounded Soldering Tip

- 500°F to 850°F   • Fully grounded
- Insulated ceramic heating element for rapid heat-up and heat recovery   • Wt.: 2.5 lbs.
- Heater insulation exceeds 100MΩ
- Zero voltage circuitry eliminating high voltage spike and magnetic field generation   • Size: 7.0"L x 4.5"W x 3.5"H

Includes: Manual and 1.2mm diameter conical tip

SALE   156785ED

Part No.	Product No.	Description	1	10	25
156785ED	379	Soldering station	$59.95	$53.95	$48.95
156814ED	XYB01	Sharp conical 1/32" tip	4.95	4.49	3.95
156822ED	XYB04	Conical chisel 1/16" tip	4.95	4.49	3.95
134631ED	SP715	Replacement sponge for P/N 156785ED	2.99	2.69	2.49

Digital Display Soldering Station

ESD Safe!

Designed for soldering situations where precise temperature is required for sensitive components.

- Temperature is maintained at ±6°F
- Electronic temperature control from 392° to 878°F
- External calibration port
- CMOS devices protected against voltage spikes
- Power consumption: 60 watts
- Power-on and Heater-on LED indicators
- Size: 5.1"W x 8.0"D x 4.0"H   • Weight: 4.8 lbs.

Includes: One 1/16" tip

SALE   162456ED   168401ED

Part No.	Product No.	Description	1	10	25
162456ED	XY9-60D	Soldering station with ESD	$109.95	$99.95	$89.95
168401ED	TWZ50ESD	SMD tweezer iron w/ 0.078" tip	79.95	71.95	64.95
168583ED	46-060102	Tip .078" for P/N 168401ED	11.95	10.79	9.69
168591ED	46-060115	Tip .590" for P/N 168401ED	12.95	11.69	10.49
134631ED	SP715	Replacement sponge for P/N 162456ED	2.99	2.69	2.49

More @ www.Jameco.com

See our website for additional Soldering, Desoldering Tools & Accessories.

Rosin Core Solder Rolls

32117ED   141778ED

Part No.	Mfr.	% Composition			Dia. (In.)	Wt. (lbs.)	Pricing			
		Tin	Lead	Silver			1	10	50	100
32117ED	Kester	60	40	0	.031	1.00	$13.19	$11.89	$10.69	$9.59
141778ED	Super	60	40	0	.031	2.20	13.95	12.95	11.95	10.95

300-Watt Solder Pot
Temperature Regulated between 420 – 450°C

- HI/LO switch selectable for temperature
- 2 conductor power cord; 5' 9" long
- Holds up to one 1.1 lbs. solder bar
- Input voltage: 110VAC @ 2.7A; 50-60Hz
- Size: (unit) 4.8"H x 5.5" Dia. (base)
- Size: (tub) 2.4"Dia. x 1.6"D

Part No.	Description	1	10	25
160303ED	300W solder pot	$64.95	$58.49	$52.65

600-Watt Solder Pot
Temperature Adjustable

- Tin boiler temp.: 0°C to 500°C
- Input voltage: 110VAC @ 5.5A
- Holds up to three 1.8 lbs. solder bars
- Size: (unit): 3.9"L x 1.6"D; (tub): 6.8"L x 5.5"W x 2.8"H

Includes: Skimmer and removable dross tray

Part No.	Description	1	10
172275ED	600W solder pot	$189.95	$159.95

Soldering Tip Cleaner with Stand and Rosin Paste Flux

156777ED:
- For cleaning soldering iron tips without the use of water and sponge
- Metal wool for cleaning
- Rubberized base for stability

156777ED

73584ED:
Highly active non-corrosive and non-conductive flux with excellent wetting action

73584ED

Part No.	Description	1	10	50
156777ED	Tip cleaner & stand........	$4.95	$4.49	$4.05
160004ED	Metal wool replacement ..	2.79	2.49	2.29
73584ED	Rosin paste flux (2 oz.) ..	1.79	1.65	1.45

More Anti-Static Products @ www.Jameco.com
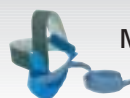
Protective Coiled Grounding Wrist Strap

- Comfortable, adjustable Velcro wrist strap
- The coiled cord has banana plug and alligator clips
- Extended cord: 9' long
- Color: black

Includes: 1MΩ resistor for added safety

SALE

Part No.	Description	1	10	100
34551ED	Anti-static strap	$6.49	$5.85	$5.29

Anti-Static Work Mats

Make your work environment safe from static discharge! These mats are made of attractive semi-conductive vinyl that provide adequate discharging, yet will not short leads or pins.

- Color: gray

Includes: Grounding clip

Part No.	Dimensions	Wt. (lbs.)	1	10	100
168508ED	24" x 28"	1.8 ..	$18.95	$17.09	$15.35

Pomona® Stackable Banana Test Lead Cables

159898ED   **159901ED**   **159919ED**

- 5000V @ 15A • 55˚C max.
159919ED: Two 36" leads, mini clip w/ banana
- 45VAC @ 5A max.; beryllium copper contact and glass filled insulation
159901ED: Two 24" leads **159919ED:** Two 36" leads

Part No.	Prod. No.	Description	1	10	25
159898ED	3782-36	Mini w/ banana	$7.95	$6.95	$6.25
159901ED	B-24-02	Patch cord	9.95	8.95	7.95
159919ED	B-36-02	Patch cord	9.95	8.95	7.95

Banana to Banana Test Leads

- Stackable
- Color coded; 2 each red, yellow, blue, black, white • 9.8" long
- 10 per package
- 18 AWG wire

Part No.	Description	1	10	25
77841ED	Test leads	$22.95	$20.69	$18.59

BNC to Alligator Clip Test Cable

Permits BNC assembly to be used as a test cable.
- Upper connection: two alligator clips – red 5.5" 22AWG wire; black 9" 22AWG wire
- Lower connection: 23" RG/58U cable with BNC connector

Part No.	Description	1	10	100	1000
11383ED	BNC cable	$3.49	$2.49	$2.25	$2.05

1⁹⁄₁₆" Banana Plugs

- Set-screw connection
- Standard banana spring plug
- Additional 6-32 threaded hole for connection reliability
- .1875" lead opening
- Insulating sleeve is threaded to banana plug body
- Size: 1.6"L x 0.4"Dia.
Includes: One red and one black plug

Part No.	Description	1	10	100	1000
72194ED	Banana plugs	$1.59	$1.49	$1.25	$1.09

Double Banana Plugs

- Dual gold-plated female banana plugs
- Stackable

125217ED

Part No.	Description	1	10	100
125209ED	Blk banana connector ...	$2.39	$2.15	$1.89
125217ED	Red banana connector ...	2.39	2.15	1.95

Mini Test Clips

- Two lengths
- One black and one red hooked probe clip

Part No.	Description	1	10	100
114809ED	1.75" mini test clips ...	$1.89	$1.49	$1.35

Mini-Clip Test Leads

These spring loaded mini-clips hook easily to IC pins for testing.
- Set of five: red, blue, green, black and yellow
- 14"L; clips on both ends
- 26 AWG to 300V CSA/UL approved wire

Part No.	Description	1	10	100	1000
135298ED	Mini test leads	$11.49	$10.39	$9.29	$8.39
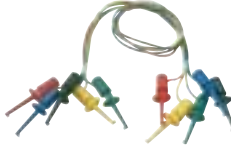
BNC to Clip Test Cable

BNC connectors are designed for signal frequencies into the gigahertz range, making them ideal for communications, video and test equipment.
- Mini-clip • Length: 39"

Part No.	Description	1	10	50	100
11463ED	Mini-clip RG174 ...	$4.39	$3.99	$3.59	$3.19

Handheld Oscilloscope and Multimeter

Six Units in One!

SALE

- 4,000 count True RMS DMM
- 1MHz bandwidth oscilloscope
- 20MHz sampling rate
- Logic test • Frequency counter
- Trend mode allows recording of sine waves for a period of time
- Component test
- Three-year warranty
Includes:
AC charger, test leads and manual

Part No.	Description	1	5
160805ED	440 digital oscilloscope	$328.95	$312.55
168330ED	RS-232 software and cable...	69.95	62.95

We'll match the advertised price of any like product.

Modular Oscilloscope Probes

- 60MHz, 100MHz, 250MHz
- Hook and pointed probes
- **216047ED/140687ED**: with IC test ground cover and spring ground contact
- Alligator clip ground wire
- Maximum input voltage: 600V
- BNC male connector
- Length: 5'

22891ED   **140687ED**

Part No.	Mfr. Cross Ref. No.	Bandwidth (±3dB)		Impedance (R/C)*		Pricing		
		Attenuation		Attenuation				
		x1	x10	x1	x10	1	10	50
22891ED	LF101E	6MHz	60MHz	1MΩ/180pF	10MΩ/22pF	$22.95	$20.79	$18.69
216047ED	HF-9100	6MHz	100MHz	1MΩ/47pF	10MΩ/16pF	34.95	29.95	26.95
140687ED	LF290	6MHz	250MHz	1MΩ/150pF	10MΩ/14pF	45.95	41.39	37.25

* with oscilloscope input 20pF

PC-MultiScope 100MHz Dual-Channel DSO

Turn your PC into a digital storage oscilloscope for 1/2 the cost of a DSO!

mission technology
- 100MHz sampling; dual channel
- Chart recorder and FFT mode
- 5mV to 5V per div.; 20MHz bandwidth; ext. trigger
- 0-4MHz sine and square wave signal generator
- Triple power supply; 5VDC @ 500mA and ±0-8VDC @ 250mA
- One-year warranty
Includes: Parallel port cable, AC adapter, alligator clip probe, Windows® 3.1/95/98 software

Part No.	Description	1	10
163230ED	PC-MultiScope 3	$579.95	$529.95

Digital Handheld Oscilloscope

- 5MHz for repetitive signals; 0.5MHz for single shot events
- Input impedance: 1MΩ/20pF
- Maximum input voltage: 100V peak (AC + DC)
- Input coupling: DC, AC, and GND (GND for auto zero reference)
- LCD graphics display: 64 x 128 pixels (64 x 96 pixels for signal)
- High contrast LCD display with 3.3" viewing angle
- Vertical resolution: 8-bit (6-bit for LCD)
- Timebase range: 2µs to 20s/div
- Input sensitivity: 5mV to 20V/div • Screen hold
- Trigger mode: run, normal, once, and ± slope
- True RMS and dB measurements • Linearity: ±1 bit
- Recommend 9VDC @ 300mA power supply (P/N 133891ED, pg 39)
- Batteries not included, recommend P/N 32627ED or P/N 151087ED, see website

SALE

velleman

Includes: Insulated BNC to alligator clip measurement probes and case

Part No.	Description	1	5
168823ED	5MHz scope (Model HPS5)	$168.95	$158.95

33 More @ www.Jameco.com
See our website for other Test Leads and Binding Posts.

EZ DIGITAL
20MHz Dual-Trace Oscilloscope

Blue CRT for higher resolution!

SALE

- 6" rectangular high-resolution blue CRT with internal graticule & scale
- Vertical deflection: 5mV/div to 5V/div in 10 calibrated steps
- Horizontal deflection: 0.2µs/div to 0.2s/div in 19 calibrated steps, 1-2-5 sequence
- Max. signal input voltage: 250V (DC and peak AC)
- ADD function measures sum of two signals
- Input voltage: 98-125VAC @ 1A, 198-225VAC @ 0.5A, 50-60Hz, 45W

Includes: Two X1/ X10 40MHz probes, power cord, manual, and block diagram

Part No.	Prod. No.	Description	1	5
136098ED	OS5020	20MHz scope....	$399.95	$385.95

EZ DIGITAL
20MHz Dual-Trace Oscilloscope with 1MHz Function Generator

- Basic specs same as 136098ED (above)
- **7 function generator**
- Frequency range: sine, triangle, square, TTL pulse
- Output impedance: 50Ω
- Output voltage: 14Vp-p

2 Instruments in 1

Part No.	Product No.	Description	1	10
94650ED	OS5020G	Func. gen.	$529.95	$499.95

Handheld 20MHz Digital Oscilloscope & Multimeter

- 4-in-1 test equipment: digital oscilloscope, DMM, frequency counter and logic analyzer
- **Oscilloscope**: 2-channel input, 5mV-2V/div; DC-20MHz(-3dB); 50ns - 0.5us/div; 20 MS/s sampling rate
- **Logic analyzer:** 8 inputs; 1.4V threshold level; 35VDC max. input; 50ns min. pulse width
- **Digital multimeter:** 3999 counts; 40 segment analog bargraph; AC/DC voltage from 400mV-600V; AC current from 40µA-400mA; DC current from 400µA-400mA; resistance from 400Ω-40MΩ; continuity & diode testing
- **Frequency counter:** 5Hz-20MHz; 5 digit max.; AC/DC/DC input coupling; 35Vrms/42V-P/60VDC max. input
- Probes use P/N 22891ED/216047ED/140687ED, pg 57

METEX
162430

SALE

(Shown w/ logic probe P/N 162974ED – not included)

Includes: Manual, 5VDC @ 3A power supply, power cord, DMM test leads, holster and case

Part No.	Description	1	5
162430ED	20MHz digital scope	$749.95	$712.49
162974ED	Logic probe	59.95	53.95
163141ED	Rechargeable batt. (portable use)	45.95	41.49
162966ED	RS-232 cable and software	26.95	24.25

100MHz Dual-Trace Oscilloscope

EZ DIGITAL

- 2-channel dual trace
- Delay line
- Auto focusing according to the change of intensity

Part No.	Product No.	1	5
121179ED	OS5100	$1,195.95	$1,139.95

2-Channel, 1.5GHz Frequency Counter

- Frequency, period, totalize, RPM
- Gate time: 0.01s, 0.1s, 1s, 10s
- 9-digit green LED display
- Input power: AC 110V/220V ±10%, 50-60Hz

EZ DIGITAL

Includes: Fuse, manual and BNC cable

Channel	Frequency Range	Resolution
A	0.1Hz-150MHz	0.1nHz-10kHz
B	50MHz-1.5GHz	0.1Hz-100kHz

Part No.	Product No.	1	5
55790ED	FC7150	$299.95	$259.95

FLUKE
Scopemeter® 123

- Dual input 20MHz digital oscilloscope
- Two 5,000 count True RMS digital multimeters
- Dual-channel TrendPlot paperless recorder
- Connct-and-View trigger simplicity for hands-off operation
- Three-year warranty
- CAT III 600V

Part No.	Model No.	Price
160661ED	Fluke 123/003SR	$1,195.00

METEX   4-in-1 Universal System

With Function Generator, Universal Counter, DC Power Supply & Digital Multimeter

- Generate 7 forms of waves in 7 frequency ranges from 0.2Hz to 2MHz
- Measure frequency ranges from 5Hz to 1.3GHz
- Generate 5V @ 2A, 15V @ 1A fixed and 0 to 30V @ 0 to 2A variable
- Ranges: DC voltage (400mV to 100V), AC voltage (400mV to 750V), DC/AC current (40mA to 20A), resistance (400Ω to 40MΩ), capacitance (4nF to 400µF) and forward resistance of a semiconductor junction in kΩ
- Size: 14.5"W x 14.0"D x 7.0"H • Weight: 37 lbs.

Save bench space & $800!

Includes: Manual, cables and software

Part No.	Product No.	1	5
160864ED	MS9150	$549.95	$499.95

Visit www.Jameco.com/DMM

For our complete selection of Digital Multimeters.

2MHz Function Generator and 2.7GHz Frequency Counter

Function Generator: (2Hz - 2MHz)

METEX®

- Wave forms: sine, square, triangle, skewed, ramp, pulse & TTL level square
- Frequency: 2Hz to 2MHz in 7 ranges
- Output impedance: 50Ω ±10%
- Output amplitude: 2 to 20Vpp at open load; 1 to 10Vpp at 50Ω load

SALE

- Offset variable range (max.): ±10VDC at open load
- Frequency sweep time: 20ms to 2s

Frequency Counter: (5Hz - 2.7GHz)
- Measuring range: channel A: 1Hz to 20MHz; channel B: 20MHz to 2.7GHz
- Input sensitivity: channel A: 20mVRMS sinewave or 100mVp-p; channel B: 40mVRMS for 20MHz to 1.3GHz; 70mVRMS for 1.3GHz to 2.7GHz
- Max. input voltage: channel A: 35Vp-p; channel B: 3Vp-p
- Input impedance: channel A, 1MΩ; channel B, 50Ω
- Data logging and graphic software

Includes: Coax & power cable, manual, serial cable and software

Part No.	Description	1	5
192671ED	Function generator/counter	$319.95	$303.95

17MHz Logic Probe

- Max input frequency: 17MHz
- Minimum pulse width: 30ns
- Input impedance: 1MΩ
- Pulse flash time: 500ms
- Audible tones for high and low
- Power supply protection: ±20V
- TTL threshold: (Lo) 0.8V ±0.2V, (Hi) 2.3V ±0.2V
- CMOS threshold: (Lo) 30% VCC, (Hi) 70% VCC

SALE

Part No.	Description	1	10	25
149930ED	Logic probe	$29.95	$26.99	$24.29

BK PRECISION
150kHz Sine/Square-Wave Audio Generator

Small and convenient, this audio generator can be used to test telco and audio equipment.

- 20Hz to 150kHz in 46 steps
- Low distortion R-C oscillator
- Variable output control
- Size: 5.9"L x 3.2"W x 0.8"H
- Output Impedance: 600Ω

Includes: 9VDC battery

Part No.	Prod.No.	Description	1	10
166334ED	BK3001	Audio generator...	$78.95	$75.99

2MHz Function Generator

- Frequency range: 0.02Hz to 2MHz
- Waveforms: sine, triangle, square, ramp, TTL pulse, skewed sine
- Variable waveform/duty cycle symmetry
- DC offset voltage from 0 to ±10V; can be superimposed to output waveform
- Output volt.: 20Vp-p (open circuit), 10Vp-p (into 50Ω)
- Input voltage: 110V/220V 50-60Hz

EZ DIGITAL

Includes: Power cord, BNC to clip cable, fuse & manual

Part No.	Product No.	1	5	10
66069ED	FG8002	$189.95	$179.95	$169.95

250-Watt Analog Power Supply

50VDC @ 5A

- Adjustable voltage/current outputs
- Constant voltage and current operation
- Color-coded adjustment knobs for voltage, current, and fine tuning
- Color-coded terminals for ground, positive, negative
- 5A @ 250V fuse • Isolated ground
- Input voltage: 110VAC @ 50-60Hz
- Color: dark gray
- Size: 4.9"L x 7.7"W x 6.7"H • Weight: 13.8 lbs.

Part No.	Mfr. Cross Ref. No.	1	10	25
175249ED	DPS5050 .... $189.95	$179.95	$171.49	

225-Watt Analog Power Supply

15VDC @ 15A

- Output voltage: 9VDC to 15VDC
- Output current: 25A max. (22A continuous @ 13.8VDC)
- Constant voltage
- Over-voltage protection @ 16.5V
- Short-circuit protection @ 27.5A
- Color-coded adjustment knob and output terminals for voltage • Built-in fan
- Cigarette lighter plug for current output
- Power and fan LED indicator • Weight: 3.8 lbs.
- Voltage and current panel meter
- Input voltage: 110VAC/220VAC @ 47-63Hz (switchable) • Size: 5.6"L x 6.2"W x 4.0"H

Part No.	Mfr. Cross Ref. No.	1	10	25
175257ED	SPS250A $169.95	$152.95	$144.95	

Logic Pulser

- Compatible with TTL, DTL and CMOS ICs
- 1MΩ sync input impedance
- "One shot" or continous 5Hz train pulse
- Pulse repetition rate: 0.5pps/400pps
- Pulse width output at 100mA load: 10µs
- Pulse mode output current: 10mA
- Square wave current output: 5mA
- Size: 7.8"L x 1.0"W x 0.6"H

Part No.	Description	1	10	25
24601ED	Logic pulser $19.95	$17.95	$15.95	

190-Watt Triple Output Power Supply

Digital Display

- Output voltage: 0 to +30VDC @ 3A 0 to -30VDC @ 3A +5VDC @ 2A
- Ripple voltage: less than 3mVp-p
- Volt and current meter: LED display (±1% + 1 digit) • Overload protection circuit
- Input volt.: 100VAC-230VAC @ 50-60Hz (switchable)

Includes: Manual and spare fuse

Part No.	Product No.	1	5
157518ED	GP4303TP $549.95	$529.95	

150-Watt Analog Power Supply

50VDC @ 3A

- Adjustable voltage/current outputs
- Constant voltage & current operation
- Color-coded terminals for ground, positive and negative terminals
- 3A @ 115V fuse
- Color-coded adjustment knobs for voltage, current and fine adjustment
- Input voltage: 110VAC @ 60Hz
- Size: 9.0"L x 4.75"W x 7.5"H • Weight: 12.3 lbs.

Part No.	Description	1	10	25
163723ED	50VDC @ 3A $159.95	$144.95	$137.95	

150-Watt Linear Power Supply

15VDC @ 10A

- Output voltage: 2VDC to 15VDC
- Output current: 15A max.
- Constant voltage and current operation
- Color-coded terminals for positive and negative terminals, voltage adjustment knob
- Overvoltage, overcurrent, short-circuit protection
- Cigarette lighter output current plug
- LED indicator for power and warning
- Current and voltage panel meter
- Built-in fan • Input voltage: 110VAC @ 60Hz
- Size: 5.7"L x 6.2"W x 4.0"H • Weight: 12.0 lbs.

Part No.	Mfr. Cross Ref. No.	1	10	25
175265ED	DPS150A $149.95	$134.95	$129.95	

150-Watt Digital Power Supply

30VDC @ 5A

- Adjustable voltage/current outputs
- Constant voltage and current operation
- LCD displays for both current and voltage
- Coarse and fine adjustment knobs for current and voltage
- Color-coded terminals for positive, negative and ground connections
- 2A @ 250V fuse • Dual digital display
- Input voltage: 110/220VAC @ 50-60Hz (switchable)

Part No.	Description	1	10	25
153242ED	30VDC @ 5A ... $219.95	$197.99	$178.19	

100-Watt Digital DC Power Supply

30VDC @ 3A

- Triple output with fixed 5VDC @ 0.5A, 12VDC @ 0.5A
- Adjustable 0 – 30V voltage and 0 – 3A current outputs
- Displays of both voltage and current
- Constant voltage or current
- Current limiting indicator
- Overload and short circuit protection
- Binding post terminals for variable supply
- Input voltage: 110/220VAC @ 50-60Hz (switchable)
- Size: 9.5"L x 6.0"W x 5.6"H • Weight: 10 lbs.

EXTECH INSTRUMENTS

Part No.	Description	1	10
197991ED	Digital DC $198.95	$178.95	

150-Watt Benchtop Power Supply

Single Output

- Power: 150W
- 30VDC @ 5A
- Display: 2-Analog
- Voltage and current adjustable
- Current restricted and short-circuit protection
- Input voltage: 110/220 ±10% VAC
- Analog display accuracy: 2.5%
- Size: 5.4"W x 6.2"H x 11.5"D

MASTECH

Part No.	Description	1	10
207618ED	Digital DC $159.95	$144.95	

DMMs

C550 Tool Bag

FLUKE

- Steel reinforced frame
- Rugged ballistic cloth with heavy duty hardware
- Large zippered storage compartment with 25 pockets

Part No.	Model No.	Price
214383ED	25-pocket tool bag $60.00	

Digital Multimeter Quick Selection Guide

Fluke 175/179 6000-Count Digital Multimeters

SALE

- Min./max./average functions
- Auto hold and manual hold
- IEC 1010 rating Cat IV 600V/ Cat III 1000V **True RMS**
- Resolution: 100µV maximum **FLUKE**
- **DC/AC voltage ranges:** 600mV – 1000V
- **DC/AC current ranges:** 60mA – 10A
- **Resistance ranges:** 600Ω – 50MΩ
- Also capacitance and frequency
- Size: 6.3"L x 3.3"W x 9.2"H
- Weight: 1.5 lbs.

185535ED

185535ED (Fluke 179): • Temp.: -40 to +400˚C

Part No.	Model No.	DC Accuracy	1	5
192655ED	Fluke 175	0.15% $168.95	$159.95	
185535ED	Fluke 179	0.09% 208.95	198.49	

WAVETEK Meterman VT201 Non-Contact Voltage Detector

- Both visible and audible voltage indicators
- 70-440VAC range
- Detects AV voltages with no electrical contact

Part No.	Description	Price
214447ED	Non-contact voltage detector $9.95	

Order Anytime 24 x 7 x 365

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JAMECO

Digital Multimeter Quick Selection Guide

All have VDC, VAC, Resistance and Current   * See indicated page for more details on each product

Handheld Digital Multimeters

Part No.	Best Sellers	Manufacturer No.	*Page	Display Count	Analog Bargraph	RS-232 PC Interface	Autorange	True RMS	Capacitance	Inductance	Frequency	Temperature	Diode Test	Logic Test	Continuity Test	Transistor hFE Test	Price
27115ED	✔	Metex M3800	Right	2000													$35.95
119212ED	✔	JE110	Below	2000											✔	✔	19.95
192647ED	✔	Wavetek 10XL	Below	2000											✔	✔	49.90
177480ED	✔	AEEC2890	Below	2000					✔		✔	✔	✔		✔	✔	49.95
147096ED		BelMerit DX460L	Below	2000					✔	✔	✔		✔	✔	✔	✔	99.95
211650ED		Extech MN26	Right	4000			✔		✔		✔	✔	✔		✔		39.95
137461EC	✔	Metex M3860D	Below	4000	✔	✔		✔	✔	✔	✔	✔	✔			✔	149.95
192655ED		Fluke 175	59	6000	✔			✔	✔		✔		✔		✔		168.95
185535ED	✔	Fluke 179	59	6000	✔			✔	✔		✔	✔	✔		✔		208.95
136590ED	✔	Mastech MY65	Right	20,000					✔						✔	✔	69.95
185201ED		B&K BK5380	61	50,000	✔			✔	✔		✔		✔		✔		149.99
182043ED		Fluke 189	Below	50,000	✔			✔	✔		✔	✔	✔		✔		398.95

Bench-Type Digital Multimeters

Part No.	Best Sellers	Manufacturer No.	*Page	Display Count	Analog Bargraph	RS-232 PC Interface	Autorange	True RMS	Capacitance	Inductance	Frequency	Temperature	Diode Test	Logic Test	Continuity Test	Transistor hFE Test	Price
132564ED		DM441	61	20,000					✔		✔	✔			✔	✔	219.95
166852ED		Metex MXD4660A	61	20,000		✔	✔		✔		✔	✔		✔	✔	✔	249.95

Our Lowest Priced 20,000-Count Multimeter

MASTECH

- Extra-large digits (0.8" digit height)
- Resolution: 10µV maximum
- **DC voltage ranges:** 200mV – 1000V
- **AC voltage ranges:** 2V – 700V
- **DC/AC current ranges:** 2mA – 10mA
- **Resistance ranges:** 200Ω – 200MΩ
- **Capacitance ranges:** 200pF – 20µF
- Measures transistor h_{FE} & continuity
- Hold button • Auto power off

Includes: Boot, 9V battery, probes & manual   CE

Part No.	Product No.	1	10	25
136590ED	MY65	$69.95	$62.95	$56.95

METEX® 2000-Count Multimeter

0.5" Digit Height • LCD Readout

- Resolution: 100µV maximum
- **DC voltage ranges:** 200mV – 100V
- **AC voltage ranges:** 200mV – 750V
- **DC/AC current ranges:** 20µA – 20A
- **Resistance ranges:** 200Ω – 20MΩ
- Auto zeroing
- Input impedance: 10MΩ   CE
- Overload protection:1000VDC/750VAC

Includes: Probes, carrying case, manual & 9V battery

Part No.	Product No.	1	10	50
27115ED	M3800	$35.95	$32.49	$29.95

4000-Count, 11-Function Multimeter with Autorange

- 4000-count large LCD display
- Auto ranging with manual override
- Resolution: 0.1mV max.
- **AC/DC voltage ranges:** 400mV – 600V
- **AC/DC current ranges:** 400µA – 10A
- **Resistance ranges:** 400Ω – 40MΩ
- **Capacitance ranges:** 4nF – 200µF
- **Frequency ranges:** 10Hz – 10MHz
- **Temperature ranges:** 0°F – 1400°F (0°C – 760°C)
- Diode test, duty cycle and continuity
- Relative zero, data hold, range hold, auto off
- Size: 2.4"W x 1.6"D x 4.8"H
- Weight: 0.6 lbs.

EXTECH INSTRUMENTS

Includes: Protective holster with stand, two 1.5V AAA batteries and test leads

Part No.	Description	1	10
211650ED	Multimeter	$39.95	$37.95

4000-Count Multimeter with RS-232, Dual Display & Inductance

- Dual displays for comparative measurements
- 3³/₄-digit LCD (⅝" digit height)
- True RMS
- Resolution: 100µV maximum
- **DC voltage ranges:** 400mV – 1000V
- **AC voltage ranges:** 400mV – 750V
- **DC/AC current ranges:** 400µA – 20A
- **Resistance ranges:** 400Ω – 40MΩ
- **Temp.:** -40°C to +1200°C; 1°C res.
- Measures inductance, capacitance, transistor h_{FE} and frequency
- Autoranging all measurement settings

True RMS   CE

METEX®

Includes: 9V battery, software and cable

Part No.	Product No.	1	10
137461ED	M3860D	$149.95	$134.99

Fluke 189 50,000-Count Multimeter w/ Data Logging

- Digital and analog bar graph display
- Backlight with 2 brightness levels
- Fast auto range • AC/DC true RMS
- Resolution: 1µV maximum
- **DC/AC voltage ranges:** 50mV – 1000V
- **DC/AC current ranges:** 500µA – 10A
- Also capacitance, frequency and temperature
- Conductance, diode testing and continuity function capable
- Data logging: 288 intervals stored; 100 readings • Weight: 2.0 lbs.
- Size: 8.0"L x 3.9"W x 2.0" Thick

FLUKE

Part No.	Model No.	Resis. Ranges	1	5
182043ED	Fluke 189	500Ω-30MΩ	$398.95	$378.95

2000-Count Pocket Multimeter

- **DC voltage ranges:** 200mV, 2V, 20V, 200V, 1000V
- **AC voltage ranges:** 200V, 750V
- **DC current ranges:** 200µA, 2mA, 20mA, 200mA, 10A
- **Resistance ranges:** 200Ω, 2kΩ, 20kΩ, 200kΩ, 2MΩ
- Diode and continuity test
- 0.5" digit height • Removable test leads
- Size: 2.6"W x 1.0"D x 4.8"H

Includes: 9V battery

Part No.	Description	1	10	50
119212ED	Pocket multimeter	$19.95	$17.95	$16.19

7-Function Multimeter

Wavetek Meterman™

2000-Count

- 7 function/22 ranges & 6 range volt tester
- Large 17mm (.67") display
- **DC voltage ranges:** 200mV – 1000V
- **DC current ranges:** 200µA – 10A
- Safety tester: 6, 12, 24, 50, 110 and 220 volts
- Unique voltage Safety Tester™
- Resolution: 0.1mV maximum
- **AC voltage ranges:** 200V – 750V
- **Resistance ranges:** 200Ω – 20MΩ
- Diode test and continuity beeper

Part No.	Model No.	1	10	25
192647ED	10XL	$49.90	$47.45	$44.95

2000-Count Multimeter

With Temperature & Frequency Measurement

- 3¹/₂-digit LCD (1.0" digit height)
- Resolution: 100µV maximum
- **DC voltage ranges:** 200mV – 1000V
- **AC voltage ranges:** 200mV – 700V
- **DC/AC current ranges:** 200µA – 10A
- **Resistance ranges:** 200Ω – 200MΩ
- **Capacitance ranges:** 2nF – 20µF
- **Frequency:** 20kHz • Wt.: 1.6 lbs.
- **Temperature range:** -20°C – 1000°C
- Diode, transistor and continuity testing
- Data hold switch • Size: 4.0"W x 2.0"D x 8.0"H

Incudes: Manual, probes, and 9V battery

Part No.	Mfr. Cross Ref. No.	1	10
177480ED	AEEC2890	$49.95	$44.95

BelMERIT 2000-Count Multimeter

- **DC voltage ranges:** 200mV – 1000V
- Function and range annunciators
- **DC/AC current ranges:** 200µA – 10A
- Diode and continuity test
- **Frequency ranges:** 2kHz – 20MHz
- Z_{IN} = 10MΩ
- **AC voltage ranges:** 200mV – 750V
- Data hold
- **Resistance ranges:** 200Ω – 20MΩ
- Inductance: 20mH – 20H
- Capacitance: 2nF – 2000µF • Auto power off
- Size: 4.0"W x 1.5"D x 8.0"H   CE

Includes: Manual, test probes and 9V battery

Part No.	Description	1	10
147096ED	2000-count multimeter........	$99.95	$89.95

50,000-Count Digital Multimeter with Analog Bar Graph

- True RMS reading
- Auto and manual ranging
- 0.55" digit height
- AC/DC voltage protection
- Continuity and diode testing
- CE safety approved
- Basic DC accuracy:
  BK5380 – 0.025%
- **DC voltage:** 500mV to 1000V
  (10uV to 100mV resolution)
- **Resistance:**
  500Ω – 50MΩ (10mΩ – 1kΩ res.)
- **Capacitance:**
  50nF – 50mF (10pF – 10μF res.)
- **Frequency:** 0.6Hz – 500kHz

Includes: Probes and manual

SALE

BK PRECISION

Part No.	Product No.	1	10	25
185201ED	BK5380	$149.99	$127.49	$95.65

20,000-Count Benchtop Digital Multimeter

- 4½-digit display,
  5-digit green LCD
- DC accuracy: 0.05%
- Full overload protection
- Resolution: 100μV max.
- **DC voltage ranges:**
  200mV - 1000V
- **AC voltage ranges:** 200mV – 750V
- **DC/AC current ranges:** 2mA – 10A
- **Resistance ranges:** 200Ω – 20MΩ
- **Frequency** measurement up to 200kHz
- Continuity check w/ beeper
- True RMS in AC range
- Data hold, diode check, transistor h_{FE} measurement

EZ DIGITAL

True RMS

Part No.	Product No.	1	10	25
132564ED	DM441	$219.95	$209.95	$199.95

20,000-Count Benchtop Multimeter w/ RS-232, Analog Bar & 4 Displays

- Automatic polarity indicator
- 1-2 readings per second
- DC accuracy: 0.1% +5 digits
- 10 reading storage & compare
- Resolution: 10μV maximum
- **DC voltage ranges:**
  200mV – 1000V
- **AC voltage ranges:** 200mV – 750V
- **DC/AC current ranges:** 2mA – 20A
- **Resistance ranges:** 200Ω – 20MΩ
- **Frequency ranges:** 20kHz – 20MHz
- MIN., MAX., AVE., relative functions
- Logic, diode, transistor h_{FE} and continuity test

METEX®

Includes: Manual, power cable, probes and software

Part No.	Product No.	1	10
166852ED	MXD4660A	$249.95	$224.95

Passive Component LCR Meter

- Measures L, C, and R with secondary parameter Q, D or R; both are displayed
- Accuracy of 0.7% for L & C, 0.5% for R
- **Inductance ranges:**
  2000.0uH to 2000.0H
- **Capacitance ranges:**
  2000.0pF to 2000.0uF
- **Resistance ranges:**
  20.000Ω to 20.000MΩ
- Test frequencies of 120Hz and 1kHz
- Quality (Q) reading: 0 to 9999
- Dissipation Factor (D) (with C) reading: 0 to 0.9999
- Selectable parallel or series equivalent circuit
- Set HI/LO limits, absolute or percentage
- Bidirectional RS-232 port with optional software
- Max./Min./Avg. recording with auto power off

EXTECH INSTRUMENTS

Includes: Leads, alligator clips, 9V battery & holster

Part No.	Description	1	10
198678ED	LCR Meter	$178.95	$160.95

2000-Count Digital LCR Meter

- **Inductance ranges:** 200μH to 200H
- **Capacitance ranges:**
  200pf to 2000μf
- **Resistance ranges:** 2mΩ to 20MΩ
- Dissipation factor measurement
- Size: 6.7"L x 3.3"W x 1.4"D
- One-year warranty

Includes: Test leads and 9V battery

Part No.	Description	1	10	25
127538ED	LCR meter	$139.95	$125.95	$118.95

Digital Light Meter

- Lux and footcandle
- Range: 0 - 50,000 Lux 0 - 5,000 Fc
- Analog output connections
- Separate light sensor for optimum location sampling
- Dimensions (sensor probe):
  3.2"L x 2.2"W x 0.5"H

Part No.	Description	1	10
131764ED	Digital light meter	$99.95	$89.95

Mini DC/AC Current Clamp Meter/Multimeter

- Bright 1/2" LCD display with DATA HOLD
- 0.5" digit height
- Size:
  7.1"L x 1.9"W x 1.4"H

Requires:
9V battery not included
(P/N 151095ED, pg 77)

Includes: Test leads, manual and case

ACA*	20A, 200A	±1.2% + 5d
DCA	200A	±1.2% + 5d
ACV*	500V	±1.0% + 2d
DCV	200V	±0.8% + 1d
Resistance	200Ω	±1.2% + 1d
*Freq.Response 40-400Hz		
Zero Adjust	External knob for DCA	

Part No.	Description	1	10
115756ED	Mini DC/AC clamp meter	$119.95	$107.95

Tools

6-Step Drill Tool

3/16" to 1/2"

Drill multiple holes in thin material with the same bit, faster and easier. You can drill holes in most materials such as plastic, metal, and wood up to 1/8" thick. No center punching on most sizes. Made of high-speed steel.

Part No.	Description	Size	1	10	25
172401ED	Step drill	3/16" to 1/2"	$9.95	$8.95	$7.95

Mini-Drill and Stand

This Mini Drill is excellent for drilling through circuit boards and protoboards. The drill comes with an array of drilling, grinding and sanding attachments. Drill stand is designed to function like a drill press.

Shown w/ drill (26702ED) & stand (26711ED)

Part No.	Description	Wt. (lbs.)	1	10	25
26702ED	MS398 drill	0.8	$29.95	$26.95	$23.95
26711ED	MS399 stand	1.8	19.95	17.95	15.95

9-Piece Assorted Drill Bit Kit

- Variety of sizes:
  .014" to .126"
- Each kit will vary in contents of bit sizes
- Shank diameter: .125"

Includes: Plastic case

Part No.	Description	1	10	50
131676ED	9-piece drill bit kit	$9.95	$8.95	$7.95

PC Board Drill Bits

- Reconditioned carbon steel bits
- High quality long lasting cutting edge
- Shank diameter: .125"
- Use for drilling holes in glass PC boards

SALE

Part No.	Drill Dia.	No.	Application	1	10	100
16619ED	.021"	75	Miscellaneous ...	$1.39	$1.25	$1.15
16580ED	.040"	59	Plated thru holes	1.39	1.25	1.15

30-Day Money Back Guarantee
If you're not satisfied, we'll take it back!
Details on page 82.

D-Sub Pin Insertion/ Extraction Tool

- Insertion/extraction tool:
  red/white plastic body;
  exchangeable tips

Part No.	Description	1	10	100
19094ED	Tool	$3.49	$2.99	$2.59

5.3" Half-Round Long Nose Pliers

- Stainless steel
- Spring return
- Durable rubber handles
- 5.3" length with 1.4" plier nose
- Knurl jaws

Part No.	Description	1	10	50	100
35490ED	Half round	$4.95	$4.49	$3.95	$3.49
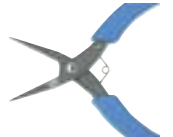
Xcelite ## Wire Cutter

- Spring return
- Micro series wire cutter – flush; 6"

Part No.	Product No.	1	10	50	100
146712ED	170M	$5.95	$5.35	$4.79	$4.29

5" Wire Cutter/Stripper

- Insulated handles
- Spring return
- Tempered steel cutting edge
- Adjustment for wire gauges
- Size: 5.0"L x 3.0"W
- For 10-30 AWG wire   • One-year warranty

Part No.	Mfr. Cross Ref. No.	1	10	50	100
78991ED	HT108	$3.95	$3.49	$2.95	$2.59

Automatic Wire Strippers

- Strips 8-22 AWG wires
- Spring load grip
- Size: 7.0"L x 2.5"W
- Weight: 0.8 lbs.

Includes: Wire stopper for desired strip length

Part No.	Description	1	10	25
175097ED	Auto wire stripper	$15.95	$14.39	$12.95

6" Premium T6 Wire Stripper

- Contoured cushion-grip handles
- Wire size markings, in AWG and mm
- 16-26 AWG stranded
- Size: 6.0"L x 2.0"W

Part No.	Product No.	Description	1	10
161234ED	ID45-216	T-6 16-26 AWG	$15.95	$14.49

Nibbling Tool

- Perfect for cutting, trimming, or notching sheet metal up to 18 AWG
- Time-saver when working on prototyping, chassis, and circuit boards
- Minimum .375" hole required   • Size: 7.8"L

18809ED

Part No.	Prod.No.	Description	1	10	25
18809ED	HT204	Nibbling tool	$8.95	$7.95	$6.95
29330ED	HT204B	Replacement bit ..	4.95	4.49	3.95

Impact Punch-Down Tool

- Reversible clip-in blade
- Adjustable (HI-LO) spring-loaded impact mechanism
- Storage bin on handle for spare blade

175071ED

175071ED:
Punch-down tool with blade
- For 66-type terminals   • Size: 5.2"L x 1.5"W x 1.0"H

175089ED

175089ED: Punch-down blade
- Blade for 110-type terminals

Part No.	Description	1	10
175071ED	Tool w/ 66 blade	$39.95	$35.95
175089ED	Punch-down blade 110	14.95	13.49

IDC Connector Crimping Tool

- Crimping distance: 27.5mm to 6mm (with attachment)
- Cushioned red handles
- Crimp insulation displacement connectors
- Use for IDC socket connectors, pg 46
- Size: 9.2"L x 3.0"W

Part No.	Product No.	1	10	25
73251ED	HT214	$14.95	$13.49	$12.15

Non-Insulated Terminal D-Sub Crimping Tool

14-26 AWG

- Metal crimping tool with cutter and insulated handles
- For computer pins, sockets and D-sub 26-28 AWG wire
- For butt-insulated connectors, 22-26 AWG wire   • Coiled spring return
- For telephone spade lugs, 22-26 AWG wire
- For non-insulated connectors, 20-22 AWG wire
- For non-insulated connectors, 14-18 AWG wire

Part No.	Product No.	1	10	25	100
99442ED	HT202A	$8.95	$7.95	$6.95	$6.29

D-Sub Crimping Tool

20-28 AWG

- Crimps D-sub pins and sockets
- Size: 7.0"L x 4.0"W

Part No.	Product No.	1	10	25
159265ED	HT213	$9.95	$8.95	$7.95

Ratcheted BNC Crimping Tool

- Crimps RG58, RG59, RG62, RG174 and fiber optic
- All steel construction

Part No.	Product No.	1	10	25
114534ED	HT-3019	$22.95	$19.95	$17.95

Terminal Wire Crimping Tool

- Crimps solderless terminals: 18-22 AWG red, 14-16 AWG blue and 10-12 AWG yellow
- Size: 9.0"L x 2.0"W

Part No.	Mfr. Cross Ref. No.	1	10	25
72995ED	HT303	$17.95	$15.95	$13.95

Magnetic Tip Measuring Tape

Measuring with a regular tape measure is not easy, especially if you are working single-handed with metal materials. With this measuring tape, you can easily clamp on to metal surfaces with its magnetic hook and make precise measurements.

- Magnetic end hook for convenient measuring and TRU ZERO function
- Blade with nylon coating for easy scale reading
- Anti slip and shockproof rubber case
- Heavy duty spring & blade system   • Extends 25'

Part No.	Description	1	10
215415ED	Magnetic tip tape measure	$13.85	$12.59

3X Magnifying Lamps

- 45" extension arm
- .49" Diameter lens
- Supplied with 22-watt Circuline tube
- Extra strong, all-metal mounting base w/ electrical outlet
- New wire clip design permits easy installation
- Power requirement: 110VAC/60Hz

Part No.	Description	1	10	25
100829ED	Black lamp	$59.95	$53.95	$49.95
149981ED	White lamp	59.95	53.95	49.95

Standard Adjustable 3X Magnifying Lamp

- 4" Diameter lens
- Maneuverable 30" arm extension
- Lamp tilts or turns in any direction
- Uses 60W incandescent bulb (not included)
- Power requirement: 110VAC/60Hz

Part No.	Description	1	10	25
22710ED	Magnifying lamp	$29.95	$26.95	$23.95

Precision 5X Magnifying Lamp

With an arm that extends to 40" long, adjustable to any direction or angle, and 5X magnifying glass with built-in light, this is the perfect tool to help identify small electronic components and for soldering electronic components.

- 5" diameter lens   • Weight: 7.1 lbs.
- Power requirement: 110VAC/60Hz

Includes: 22W circuline fluorescent bulb

Part No.	Description	1	10	25
197456ED	Magnifying lamp	$109.95	$98.95	$88.95

55-Piece Tech Tool Kit

Perfect for general & precision work

Kit includes:

Screwdriver handle, 6-pc. mini-hammer set, 5-pc. of double edge blade, 3-pc. soldering aid kit, 3-prong holder, 7-way crimping tool, 6 precision screwdrivers, 7-pc. hex key wrench, 30W soldering iron, adjustable wrench, anti-static strap, 8" linemans pliers, bent needle nose pliers, brush, desoldering pump, diagonal cutting pliers, flat nose pliers, utility knife, IC extractor, mini flashlight, 5 needle files, needle nose pliers, rosin core solder, 2-pc. screwdriver set and 2 tweezers
- Carrying case has outer velcro pockets to store paperwork, etc.
- Size: 17.6"L x 12.8"W x 4.0"H   • Weight: 9.2 lbs.

Part No.	Description	1	5
136311ED	55-piece tool kit	$129.95	$116.95

66-Piece Tech Tool Kit

Kit for Field Technicians and Engineers!

Kit includes:

Mini vacuum cleaner; cassette head cleaning fluid; keyboard/monitor spray cleaner; long nose pliers w/ cutter; hobby vice; 3-pc. soldering aid kit, 3-prong holder, 5-way crimping tool, 6 long precision screwdrivers, 10-pc. (SAE) mini wrench set; 30W soldering iron; adjustable wrench, anti-static strap, 8" linemans pliers, brush, desoldering pump, diagonal cutting pliers, digital multimeter, electrical test screwdriver, electricians tape, heat sink, flat nose pliers, utility knife, IC extractor, mini drill, mini flashlight, 5 needle files, needle nose pliers, rosin core solder, 13-pc. screwdriver set, soldering stand, stainless steel scissors, tweezer, utility components box and carrying case
- Size: 18.0"L x 14.0"W x 6.0"H   • Weight: 15.5 lbs.

Part No.	Description	1	5
105646ED	66-piece tool kit	$179.95	$164.95

RG Type Bulk Coaxial Cable

RG58/U & RG58A/U (50Ω):
  Nominal capacitance: 27pF/ft.; center resist.: 10.4Ω/1kft. @ 77˚F
RG59/U (75Ω): Nominal capacitance: 19pF/ft.; center resist.: 16.5Ω/kft. @ 77˚F
RG174/U (50Ω): Nominal capacitance: 30.8pF/ft.; center resist.: 97Ω/kft. @ 77˚F
• Prepackaged and priced in increments of 100' or 1000'

Part Number	Mfr. Cross Ref. No.	Description	100 ft.	1000 ft.
116898ED	RG58A/U	For ethernet, oscilloscopes (stranded 20AWG)	$16.00	$140.00
112037ED	RG174/U	For ethernet, oscilloscopes (stranded 26AWG)	19.00	169.00

BNC/RCA Adapters

• Convert existing cabling systems to more readily available parts for expansion, replacement or upgrade

114788ED   114753ED   114770ED

Part No.	Description	1	10	100	500
114788ED	RCA female to BNC male adapter	$1.35	$1.05	$.99	$.98
114753ED	RCA male to BNC female adapter	1.59	1.45	1.29	1.19
114770ED	BNC female to "F" connector male adapter	1.79	1.59	1.39	1.19

RCA Jacks

112475ED   159484ED   172339ED

• Standard RCA jacks for audio and video signals
• See page 54 for RCA cables

Part No.	W x D x H (ins.)	1	10	100	1000
112475ED	.42 x .57 x .48	$.39	$.35	$.31	$.19
159484ED	.84 x .38 Black	.49	.44	.39	.24
172339ED	.84 x .38 Red	.49	.39	.31	.23

SMA Connectors

153365ED   145381ED   153285ED   160021ED   188509ED   188525ED

• Application: cellular phone, data communication, instrumentation and video
• 50Ω impedance   • Plating gold except • 153285ED: plating nickel
• Frequency range: 0-18GHz   • Temperature range: -65˚C to 165˚C
153365ED: Cable type: RG-174   **153285ED:** Cable type: RG-58/174

Part No.	Description	1	10	50	100
153365ED	SMA 50Ω crimp type male plug connector	$4.39	$3.95	$3.55	$3.19
145381ED	SMA straight female PCB mount connector, 4 legs	5.25	4.75	4.25	3.49
153285ED	SMA bulkhead solder female w/ washer, rear mount	3.29	2.99	2.69	2.45
160012ED	Panel mount feed thru connector female – female	4.49	4.05	3.65	3.29
188509ED	SMA PCB straight jack	3.69	3.35	2.99	2.69
188525ED	SMA PCB right angle jack	5.95	4.95	3.79	3.35

BNC Coax Connectors

BNC connectors are miniature, lightweight units designed to operate up to 11GHz and typically yield low reflection up to 4GHz

Fig. 1   Fig. 2   Fig. 3

Part No.	Fig.	Description	1	10	100	500
71482ED	1	BNC male with pin and ferrule (RG58)	$1.65	$1.49	$1.35	$1.25
112109ED	1	BNC male with pin and ferrule (RG174)	1.59	1.45	1.29	1.15
71589ED	2	BNC female panel mount (UG-1094A)	1.49	1.35	1.25	1.09
111561ED	3	BNC female isolated bulkhead	2.29	1.99	1.79	1.59

0.2"-Pitch Power Connectors and Pins

Connector & Housing Specifications:
• Voltage rating: 250VAC (Mate-N-Lock 600VAC)
• Operating temperature: -55°C to +105°C
Crimp Pin Specifications:
• Material: tin plated brass • Current rating: 1.5 amps
• Wire size range: 18-24 AWG
• Use crimp tool P/N 99442ED, pg 62

For 5.25" Disk Drives and Power Supplies

42075ED & 42067ED Connector Housings:
• Keyed mating connectors
• External key bar indicates pin 1

42729ED (Male for 42075ED)   **109145ED   117567ED**
42649ED (Female for 42067ED)   **42075ED** (Male)   **42067ED** (Female)

• See website for extraction tools, P/N 131887ED & 131879ED
• Prepackaged: order in increments of 10, 100 or 1000

Part No.	Description	10	100	1000
109145ED	4-pin M vert. PCB mtg	$.59	$.49	$.31
117567ED	4-pin M PCB mounting, horizontal edge mount	.63	.55	.49
42075ED	4-pin M housing	.12	.11	.10
42067ED	4-pin F housing	.23	.18	.15
42729ED	M crimp pin for 42075ED	.10	.07	.06
42649ED	F crimp pin for 42067ED	.10	.07	.06

45 More @ www.Jameco.com
See our website for more BNC and SMA Adapters.

0.098"-Pitch AT Power Connectors for Motherboards & Power Supplies

• Voltage rating: 250V AC/DC   • Current rating: 7A AC/DC   • Temperature range: -25˚C to 85˚C
• Insulation resistance: 1000MΩ minimum   • Withstanding voltage: 1500V/min.
78300ED: AMP60G male 6-pin PCB mount connector
• Material of post: tin-plated brass   • Diameter of post: .09"
78326ED: AMP50G female 6-pin housing connector • Material: nylon
78318ED: AMP501T terminal pin
• Material: tin-plated brass

78300ED   78318ED   78326ED

✳ Prepackaged: order in increments of 10, 100 or 1000

Part No.	Description	L	W	H	Dia	Use With	1	10	100	1000
78300ED	6-pin male connector	.93"	.37"	.57"	—	—	$.45	$.39	$.35	$.31
78326ED	6-pin housing connector	.94"	.25"	.74"	—	78300ED	.35	.31	.28	.25
78318ED	Power terminal pin, female	.69"	—	—	.09"	78326ED	✳	.11	.08	.07

BNC Coax Male Connectors

BNC connectors are miniature, lightweight units designed to operate up to 11GHz and typically yield low reflection up to 4GHz.

SALE

BNC with Pin and Ferrule

Part No.	Description	1	10	100	500
135618ED	RG6	$.89	$.69	$.45	$.39
71482ED	RG58	1.65	1.49	1.35	1.25
71271ED	RG59/62	1.39	1.25	.99	.75
112109ED	RG174	1.59	1.45	1.29	1.15

SMA/SMB 50Ω Coax Cables

• SMA male to SMA male

Part No.	Cable	Length (ft.)	1	10	50
163854ED	RG174	1	$4.49	$3.95	$3.39
153381ED	RG174	2	4.95	4.29	3.39
153390ED	RG174	4	5.49	4.75	4.29
159450ED	RG174	6	6.79	6.15	5.55

BNC Coax Cables

11404ED   111472ED

RG58/U 50Ω Cables

• For Ethernet networks, oscilloscopes

SALE

Part Number	Mfr. Cross Ref. No.	Lgth (ft.)	1	10	50	100
11404ED	CRG58-3	3	$3.95	$3.59	$3.25	$2.89
102331ED	CRG58-6	6	3.69	3.29	2.99	2.69
180822ED	CRG58-10	10	4.49	4.05	3.65	3.29
169818ED	CRG58-15	15	5.49	4.95	3.95	2.95
102365ED	CRG58-50	50	9.49	8.55	7.69	6.89

RG174/U 50Ω Cables

• For Ethernet networks, oscilloscopes

Part Number	Mfr Cross Ref. No.	Lgth (ft.)	1	10	50	100
111472ED	RG174U3	3	$3.85	$3.49	$3.15	$2.85
111481ED	RG174U6	6	4.59	4.15	3.75	3.35

BNC PCB Connectors

- **146528ED:** Ideal for applications where multiple insertions require a connector which can endure the stress of high torque • **146510ED/161656ED:** Maintains matching impedance at 50Ω & 75Ω. Ideal for LAN cards & precision video

146528ED
146510ED
161656ED
SALE

Part No.	Description	Length (L)	1	10	100	500
146528ED	BNC straight metal	.719"	$2.79	$2.55	$2.29	$2.05
146510ED	BNC right-angle plastic insulation	1.37"	1.95	1.75	1.49	1.25
161656ED	BNC right-angle metal	.861"	2.29	1.99	1.79	1.59

Modular Data Network Cables

- 24 AWG (7 x 43) stranded
- UTP • 8P8C
- "Snagless" boot
- High-flexibility
- Color coded for easy wire tracing
- 4 pair

Blow-out Prices!
SALE
124741ED 124847ED

Category 5 (100MHz)

Part No.	Description	Color	1	10	100
124741ED	15ft. cable RJ45	Red	$2.39	$2.15	$1.95
124847ED	3ft. cable RJ45	Black	1.15	1.05	.95
170190ED	25ft. cable RJ45	Blue	3.55	2.69	1.89
124695ED	7ft. cable RJ45	Yellow	1.49	1.35	1.25

Category 5e (350MHz)

Part No.	Description	Color	1	10	100
168292ED	3ft. cable RJ45	Gray	$1.79	1.49	$1.39
168305ED	7ft. cable RJ45	Gray	2.99	2.59	2.39
169261ED	10ft. cable RJ45	Gray	6.95	6.25	5.59
168313ED	15ft. cable RJ45	Gray	5.29	4.39	3.99
201734ED	3ft. cable RJ45	Blue	1.79	1.49	1.39
201742ED	7ft. cable RJ45	Blue	2.99	2.59	2.39

Bulk Modular Network Cables

- 100MHz
- Color: gray
- UTP • 8C
- 4 twisted pairs
- Insulation: polyethylene
- Nom. OD.: 189"
- Nominal impedance: 100Ω

118130ED

Solid: uses modular plug P/N 119343ED, far right
Stranded: uses modular plug P/N 79281ED, far right

- Prepackaged and priced in increments of 25' or 100'

24 AWG UTP Category 5 – 100MHz

Part No.	Description	25 ft.	100 ft.	1000 ft.
118130ED	Stranded 7/32 AWG	$5.95	$19.35	$164.50

24 AWG UTP Category 5e – 350MHz

Part No.	Description	25 ft.	100 ft.	1000 ft.
176225ED	Solid	$5.00	$17.00	$100.00
176233ED	Stranded	6.00	21.00	180.00

RJ45 Keystone Wall Plates

195549ED   195557ED   195565ED   195573ED
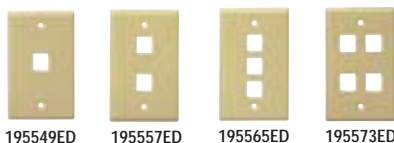
- Color: ivory • Size: 2.8"W x 4.5"H

Part No.	No. of ports	1	10	100
195549ED	1	$1.25	$1.15	$.99
195557ED	2	1.25	1.15	.99
195565ED	3	1.25	1.15	.99
195573ED	4	1.25	1.15	.99

RJ45 Modular Jacks

Punchdown Keystone Type

- Removable jacks used in wall plates (clip in)
- CAT 5e classification
- Punchdown type wiring connections with color coding • 8P8C

195602ED   195611ED

Part No.	Color	1	10	100
195590ED	Red	$3.59	$3.39	$3.19
195602ED	Yellow	3.59	3.39	3.19
195611ED	Green	3.59	3.39	3.19
195629ED	Black	3.59	3.39	3.19
195637ED	Ivory	3.59	3.39	3.19

Cat 5e Crossover Cable

- Connect 2 PCs without a hub
- 24AWG (7 x 43) stranded
- Strain relief RJ45 connectors
- 4-pair • 8P8C • UTP

Part No.	Description	1	10	100
169261ED	10' cable RJ45, gray	$6.95	$6.25	$5.59

Modular Jack Boxes & Wall Plate

W/E = Western Electric type no.

Fig. 1 (72311ED) W: 2.8" H: 4.5"
Fig. 2 (71651ED) W: 2.0" H: 2.2" D: 0.9"

Part No.	Description	W/E	Fig.	1	10	100
72311ED	6P6C & 8P8C double wall jack plate w/ jacks	—	1	$1.95	$1.75	$1.57
103464ED	6P4C adhesive jack RJ11	625A-4	2	1.39	1.19	1.09
71984ED	6P6C adhesive jack RJ11	625BS-6	2	1.39	1.19	.99
71651ED	8P8C adhesive jack RJ45	635	2	1.95	1.65	1.45

Network Starter Kit

SALE

- Single chip controller on PCI network card complies to bus specification 2.1
- Conforms with IEEE standards
- Shielded RJ45 connector on network card
- On-board socket for an optional remote boot ROM
- LED diagnostic to monitor network conditions
- 5-port hub supports 10/100Mbps
- Auto negotiation capability • Up-link port for expansion

Includes: Two each PCI network cards and 15' straight-through cables, 5-port mini hub, 7.5VDC @ 1A wall transformer, 3.5" diskette drivers, and manual

Part No.	Description	1	10
208469ED	Network starter kit	$59.95	$53.99

Network Expansion Accessories

Part No.	Description	1	10
168321ED	15' cable RJ45	$7.99	$6.79
173606ED	PCI ethernet card	14.95	13.49

Single-Line Telephone Filter

In-line Z-BLOCKER® filter blocks interference between DSL/HPN, voice and RF from cordless phones. Plugs directly into any standard phone jack and works with any single line phone, fax or dial-up modem.

SALE

Part No.	Description	1	10	25
196429ED	Telephone filter	$4.59	$4.15	$3.79

Modular Plugs

SALE
79290ED   79273ED   79281ED   119343ED

P = No. of positions   C = No. of contacts
W/E = Western Electric type number

✱ Prepackaged: order in increments of 10, 100 or 1000

Part No.	Description	W/E	1	10	100	1000
79290ED	6P4C (RJ11)	623	✱	$.12	$.11	$.095
79273ED	6P6C (RJ11)	623	✱	.22	.195	.18
79281ED	8P8C (RJ45) (for stranded wire)	641	✱	.28	.24	.20
119343ED	8P8C (RJ45) unshielded (for solid wire)	—	.49	.44	.35	.28

Modular Jacks

105945ED   204169ED   124038ED   115844ED
SALE

- PC mount
- Voltage rating: 150 volts AC max.
- Contact current rating: 1.5 amp max. @ 25˚C
- Durability: 750 mating cycles

Part No.	Description	W/E	1	10	100
105945ED	6P4C (RJ11) top flange	623	$.62	$.52	$.45
204169ED	6P4C (RJ11) dual	—	1.39	1.25	1.15
124038ED	6P6C (RJ11) 6" leads	—	1.25	1.15	.99
115844ED	8P8C (RJ45)	641	.48	.44	.40

RS-232-to-RJ11/RJ45 Modular Jack Adapters

66181ED   66237ED

Change your RS-232 port to a RJ11 or RJ45 modular jack. This will allow you to use modular phone cable rather than RS-232 cable, thus simplifying networking applications. Comes complete with wiring and hardware.

Part Number	Cross Ref. No.	Description	1	10	100
66181ED	G9P6	DB9 M-RJ11(6P6C)	$2.59	$2.35	$2.09
66190ED	G9P8	DB9 M-RJ45(8P8C)	2.89	2.65	2.35
114737ED	G9S4	DB9 F-RJ11(6P4C)	1.95	1.79	1.59
66211ED	G9S8	DB9 F-RJ45(8P8C)	2.99	2.69	2.45
66229ED	G25P6	DB25 M-RJ11(6P6C)	2.95	2.35	1.99
66237ED	G25P8	DB25 M-RJ45(8P8C)	2.99	2.69	2.45
204273ED	TMA-105	DB25 F-RJ11(6P4C)	1.95	1.49	1.05
66245ED	G25S6	DB25 F-RJ11(6P6C)	2.59	1.95	1.39
66253ED	G25S8	DB25 F-RJ45(8P8C)	2.89	2.59	2.29

Modular Cable Tester with Remote Terminator

Easily read correct pin configuration of 10baseT, 10base2, RJ45/RJ11 modular cables, 258A, TIA568A/568B, token ring, etc. Test installed cables either on wall plate or patch panel from a distance.

- Check for cable continuity, miswiring, open, short, grounding and pin configurations
- Cable adapters: RJ45 M-M, 2 RJ45M-BNCM and BNC F-F
- On-board connectors: 2 RJ45F (tester) and 1 RJ45F (remote)
- Size: 4.0"L x 2.5"W x 1.0"H (Main console)
- Size: 4.0"L x 1.3"W x 1.0"H (Remote) • Wt.: 0.7 lbs

Includes: Manual and test cables

Part No.	Description	1	10
145710ED	Modular cable tester	$84.95	$76.49

RS-232 Line Status Tester

Identifies simple interface problems which you can repair yourself. Targets the status of lines 2, 3, 4, 5, 6, 8, 11, 19 and 20. Connectors: male to female DB25.

Part No.	Description	1	10	100
14285ED	Check line tester	$7.95	$6.49	$5.95

Flexible Multilink RS-232 Tester & Breakout Box

Visually indicates the status of lines 2, 3, 4, 5, 6, 8, 20 and 22 on the DTE and DCE sides. Provides signal status at a glance. Complete cable "breakout" & reconfiguration. Connectors: DB25 male & DB25 female.

- Cable length: 4" • Size: 3.5"L x 3.3"W x 1.0"H

Includes: handy carrying case, 10 jumper wires and a device wiring chart

Part No.	Description	1	10	25
25945ED	Tester/breakout box ...	$22.95	$19.95	$17.95

ISA Fast SCSI-II Controller

- Compatible with DOS, Windows®, Windows® NT, Windows® 95, OS2 Netware, and SCO Unix
- Internal and external SCSI-II connectors
- Size: 6.3"L x 2.9"W

Includes: Setting sheet, ribbon cable, and software (3.5" disk)

Part No.	Description	1	10
149294ED	ISA SCSI-II controller	$44.95	$39.95

Internal & External Modems on our website.
Discover what you are looking for @ www.Jameco.com

Black Magic   Telephone Ringing Generator

Switching inverter that produces low-frequency alternating current to signal telecom ringers or equivalents.

- Frequency: 20Hz
- Series resistor: 300Ω
- Nominal output voltage: 86 Vrms
- No reverse polarity protection
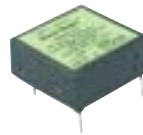
Part No.	Product No.	1	10	25
145816ED	LBMR12	$26.95	$24.49	$21.95

NETGEAR PCMCIA Network Card

Plug into the power of networking – share printers, share access to the internet, send and receive email and messages, drag and drop files between computers.

- Auto detection of 10/100 Mbps speed (10Base-T / 100Base-Tx)
- Full duplex capability
- Plug and play, easy installation • PCMCIA type II
- LED indicator for 100Mbps activity and link activity

Requirements: 486/Pentium® compatible laptop, PCMCIA slot (type II), Windows® operating system

Includes: 3.5" driver software, PCMCIA to RJ45 adapter and RJ45 network cable

Part No.	Description	1	10
210972ED	PCMCIA network card	$29.95	$27.95

QUIKLINK Automatic Telephone Ring Down Unit

- Applications: elevator and door entry phones; in-office and off-premise emergency hotlines; tie lines between phones, PABX and Key systems; CO line simulators for sales demonstrations; testing rings, answering, and signal path functions in telecom repairs, installation and production
- Ringing power: 70V @ 20Hz modified square wave
- Power input: 12VAC @ 700mA (max.)
- Line feed type: two wire unbalanced
- Max. loop resistance: 600Ω • Term.: 4-40 screws
- LED hook status indicator; ringing cadence: continuous/1 second on 1 sec. off/2 sec. on 2 sec. off/2 sec. on 4 sec. off; additional power input: 20-28VDC @ 300mA max.; RJ11 terminations

Part No.	Dimensions	1	10
179936ED	4.2"L x 2.5"W x 0.5"H	$99.95	$89.95

AT&T Fax Switcher

- Features automatic ring reduction, answering system transfer and transfer timer, extension in use detection and calling tone detection, dial pulse / rotary transfer, unanswered call transfer, reverse modem detection, remote call alert, line interrupt protection, calling tone detection
- System capacity: line-in, answering machine, phone, modem/fax connection

Includes: 12VAC @ 830mA power supply, 6' 11" telephone cable, and manual

Part No.	Product No.	Description	1	10
152004ED	ATT200A	Fax switch	$24.95	$22.49

PHOEBE Personal Fast Ethernet Switch Hub

JAMECO's choice as the best performance/value combination in networking – PHOEBE.

- IEEE 802.3 (10Base-T) / 802.3U (100Base-TX) compliant
- Auto MDI/MDIX, auto negotiation RJ45 ports
- Store and forward method
- Packet forwarding rate: 10Base-T – 14880pps to 10Mbps; 100Base-TX – 148800pps to 100Mbps
- 8k media access control (MAC) addresses
- Buffer memory size: 256k bytes RAM
- LED indicator for power and link activity

Includes: 7.5VDC @ 1A power supply, installation guide and mounting hardware

Part No.	Description	Size (LxWxH)	1	10
215642ED	8-port	6.7" x 3.9" x 1.2"....	$49.95	$44.95

External 56kbps Fax/Modem

- Digital telephone answering machine with voice mail system
- RS-232 (DB9 female) interface
- Modem line speed: 300 ~ 56000bps
- Standard Compatibility: ITU-T V.92, V.90, V.34, V.32, V.32bis, V.23, V.22bis, V.21, and Bell 103, 212A
- Error Correction: ITU-T V.42, MNP2-4
- Data Compression: ITU-T V.42bis, MNP5
- Flow Control: RTS/CTS, XON/XOFF
- Comment Set: TIA/EIA 602 "AT" command set
- Fax /Modem Line Speed: 2400 ~ 14400bps
- Standard Compatibility: ITU-T V.17, V.27 ter, V.29
- Command Set: Class 1, 1.0, 2 and associated AT command sets
- Size: 6.3"L x 4.0"W x 1.3"H • Weight: 1.8 lbs.

System requirements: Pentium or PC compatible with 16MB of memory, available RS-232 slot; Windows® 9x/ME/NT4.0/2000/XP

Includes: RS-232 cable (DB25/DB9 female to DB9 male); phone cord, 9VAC@1A power supply, CDROM drivers and manual

Part No.	Description	1	10
216493ED	Conexant V.92 serial modem	$49.95	$44.95

PCI Ultra ATA/133 Controller Card

- Supports 4 IDE devices
- 133Mbytes/sec burst data rate onPCI local bus and IDE bus
- Widest range of compatible IDE/ATAPI devices
- Supports Windows® 98/ME/NT4.0/2000/XP
- Enhanced BIOS on board • Size: 5.2"L x 2.5"W

Includes: 80-wire/40-pin cable, 3.5" drivers & manual

Part No.	Description	1	10
208021ED	Ultra 133 controller card	$44.95	$39.95

Short Haul Modem

- Up to 38,400 baud
- Will communicate over 6.3 miles of cable
- No external power required • DCE/DTE selectable
- Xon-Xoff or hardware handshaking
- RS-232 interface (DB25 female)

Part No.	Description	1	10	25
116581ED	Short haul modem	$29.95	$26.95	$23.95

ISA IDE Super 16-Bit I/O Plus

Supports 2 IDE and 2 Floppy Drives

- Parallel printer port interface (P/N 131318ED is bidirectional)
- Game port
- Two RS-232 serial ports
- UART emulation: **67061ED:** 16450; **131318ED:** 16550

131318ED

Includes: Manual and cables

Part No.	Description	1	10
67061ED	16450 UART I/O	$14.95	$13.49
131318ED	16550 UART I/O	29.95	26.95
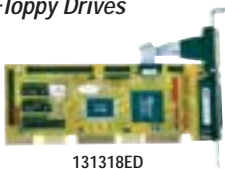
PCI Ultra High-Speed I/O

Serial 16C550 and Parallel Port

SALE

- 32-bit PCI bus with PCI bus 2.1 specification compliant
- Serial ports are software configurable w/ throughputs up to 921.6kbps
- BPP/SPP mode compliant
- Windows® 95/98/NT 4.0 drivers supported

169594ED

169594ED: 2 serial DB9M on card and 1 parallel DB25F panel bracket assembly

Part No.	Description	1	10
146667ED	Dual serial (16C550)	$38.95	$36.95
169594ED	2 serial (16C550) and 1 parallel	59.95	53.95
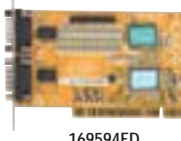
PCMCIA RS-232 Interface

PC card/PCMCIA-based serial port card.

- Low cost single port RS-232 interface
- Uses 16550 UART
- 5, 6, 7 or 8 data bits
- Odd, even or no parity
- 115k baud data rates
- Configured as COM1, COM2, COM3 or COM4
- PCMCIA type II compliant

Includes: 1' cable

Part No.	Description	1	10
164451ED	PCM-COM232 card	$119.95	$104.95

PCI High-Speed Multi-Port Serial I/O

2, 4 or 8 16C650 Serial Ports

- 32-byte FIFO
- Plug & Play compatible
- Standard RS-232 interface
- Transfer rate: up to 921kb/sec.
- Supports IRQ sharing

171547ED

172005ED: Dual 16C650 Serial Ports
- Two DB9 male connectors
Includes: Manual and drivers on CD-ROM & floppy

171547ED: Quad 16C650 Serial Ports
Includes: Manual, cable (37-pin male to 4 DB25 male) and drivers on CD-ROM

171660ED: Eight 16C650 Serial Ports
Includes: Manual, internal cable with bracket, 2 cables (37-pin male to 4 DB25 male) and drivers on CD-ROM

System requirements: 486 and higher compatible, Windows® 95/98/NT/2000

Part No.	Description	1	10
172005ED	2-port PCI serial	$59.95	$53.95
171547ED	4-port PCI serial	129.95	116.95
171660ED	8-port PCI serial	179.95	161.95

ISA 2-Port High-Speed Serial I/O

Dual 16C650 UART Ports

- 16-byte FIFO
- Transfer rates up to 921kb/sec.
- IRQ (3, 5, 7, 9, 10, 11, 12, 15) and address jumper configurable
- Weight: 0.5 lbs.
- 2 DB9 male connectors
- Size: 5.0"L x 2.7"W

System requirements: 486/586 and higher compatibles; Windows® 95/98/NT/2000

Includes: Manual and drivers on CD-ROM

Part No.	Description	1	10
171555ED	Dual serial	$24.95	$21.85

Serial Port Complete

Lakeview Research RS-232 & RS-485 are the most versatile, inexpensive interfaces for linking, but the hardware & programming are often misunderstood. This book provides you with everything you need to design, program, install and troubleshoot the links you set up. (306 pages, 1998)

Includes: 3.5" diskette

Part No.	Description	1	10
154771ED	Serial Port Complete Book	$39.95	$35.95

More Books on Page 76

See our website for our complete selection
www.Jameco.com/Books

PCI Ultra High-Speed Parallel

Single Ultra High-Speed Port

- Supports ECP and EPP
- Transfers data up to 2MB/sec.
- Plug & Play ready
- 32-bit PCI interface
- 32-byte FIFO
- Supports IRQ sharing
- 1 DB25 female connector

System requirements: 486/586 and higher compatibles; Windows® 95/98/NT/2000
Includes: Manual and drivers on CD-ROM

Part No.	Description	Size (L"xW")	Weight (lbs.)	1	10
171926ED	PCI single parallel	4.7 x 2.2	0.5	$39.95	$35.95
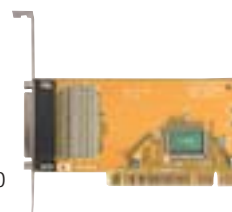
Industrial Communications

RS-232 to RS-485/422 Bidirectional Converters

ATEN

- Cable length: 4000' max.
- Data rate: 1MB/second
- 4-wire full duplex or 2-wire half duplex
- Controlled by RTS signal
- Point-to-point and multidrop operations

117701ED

- RS-485: terminal block & RJ11 connections
- RS-232: DB25 female connector
- Input: 110VAC

197931ED: port powered • Data rate: 100kbps
122956ED: features RS-485SI optical isolation: 2000V

Includes: 9VDC @ 300mA power adapter

Part No.	Description	1	10
117701ED	RS-232-485/422	$57.95	$51.95
197931ED	RS-232-485/422	69.95	62.99
122956ED	RS-232-485/422 OPT ISO	119.99	107.99

Diagnostic Card for PCI-Bus Systems

UX ULTRA-X

This is the first diagnostic card for monitoring Power-On-Self-Test results in systems using PCI-Bus architecture.

- Plugs into any PCI I/O slot
- Digital indicators for every POST code error
- LEDs for monitoring power (DC): +12, -12, +5, +3
- LEDs for clock and reset failure
- Comprehensive manual w/ error codes from all major BIOS manufacturers including AMI, AWARD, PHOENIX and more
- One-year warranty

Part No.	Description	1	10
135108ED	PCI-POST diagnostic card	$274.95	$259.95

Computer Monitor & NTSC Tester

Mac, PC and TV

- Tests VGA, Super VGA, Mac monitors and TVs
- Checks full-field color bars, color raster, dots (static and dynamic convergence), cross-hatch and windows (power supply regulation, checks for a clear distinction between white and black portions)
- Connectors: HDDB15F, DA15F
- Two video connectors for TV, composite and S-video
- Power with either a 9V battery or an external DC adapter (recommend P/N 151095ED, pg 65 or P/N 100845ED, see website)
- One-year warranty
- Size: 5.5"L x 3.0"W x 1.4"H • Weight: 0.7 lbs.

GME

Part No.	Description	1	10
149729ED	Computer monitor tester	$189.95	$179.95

GPIB IEEE-488.2 Board

PCI Bus

- 1 MB/s transfer rates • 1024 word FIFO buffer

Part No.	Mfr. Cross Ref. No.	1	10
177121ED	PCI-GPIB-1M	$398.95	$358.95

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2-Port USB-A PCI Card

- Plug & Play compatible
- Uses VIA VT83C572 controller chip
- USB specification V.1.1 compatible
- USB legacy BIOS supports
- Operates in USB-aware operating system (Win® 95, 98)

Includes: Manual

Part No.	Description	1	10	25
155299ED	PCI USB	$24.99	$22.49	$20.25

2-Port USB-A PCMCIA Card

- PCMCIA type-II card
- New 32-bit CardBus
- Size: 4.6"L x 2.1"W
- USB 1.1 OHCI USB standard; 12Mbps max. speed

System requirements: Windows® 98, ME, 2000 and Mac OS 8.6 or later **Includes:** Manual

Part No.	Description	1	10
189499ED	USB 1.0 CARD BUS card	$55.95	$49.95

USB-A Female Cables & Bracket

- Supports data transfer rates of 12Mbps
- Connection of two devices
- Dual USB-A female connectors • 8" long

Part No.	Description	1	10	25
144813ED	USB-A panel mount	$6.95	$6.25	$5.59

USB to Serial Adapter with Prolific Chipset

This USB serial adapter provides an external Plug-and-Play RS-232 port for computers, notebooks, and handheld held computing devices. Provides high-quality serial connections at transfer rates of more than 500kbps for cell phones, PDAs, digital cameras, modems and ISDN terminal adapters.

- Supports RS-232 serial interface, automatic handshake mode, remote wake-up and power management
- Provides a 96-byte buffer for each upstream and downstream data transfer
- Has a 7" cable with DB25 male connector and a 14" cable with USB-A connector

System requirements: Windows®98/2000, USB host controlled installed in the system

Part No.	Description	1	5
213006ED	USB-A to serial converter	$29.95	$27.95

External 3-Port USB Thumbhub

Expand your single USB port to a stacked 3-port thumbhub.

- USB Revision 1.1 compliant
- Downstream port with OCD (over current detection) and OCP (overcurrent protection)
- LED indicators uplink/down port communication, and OCP status
- Supports full speed (12Mbps) and low speed (1.5Mbps) transfer rate • Self-powered mode
- Compatible with Windows® 98/98SE/2000/ME/MAC OS8.5
- Size: 3.1"L x 0.8"W x 1.2"H

Part No.	Description	1	10
208451ED	3-port thumbhub	$18.95	$16.95

External USB 2.0 4-Port Hub

This hub allows you to connect and add any USB 2.0 peripherals to your PC. USB 1.1 backward compatible allowing all previous devices that you may have function as usual.

- Supports 1.5Mbps low speed, 12Mbps full speed, and 480Mbps high speed data transfer rate
- One USB-B female upstream port and 4 USB-A female downstream port
- Connects up to 127 devices through cascading multiple hubs • Supports self-powered mode

System requirements: Pentium® 233Mhz or higher and MAC PCs, 64MB of RAM, available USB port, Windows® 98SE/ME/2000/XP/Mac OS

Includes: 5VDC@4A power supply, USB-A male to USB-B male cable, and manual

Part No.	Description	1	10
209007ED	4-port hub	$41.95	$38.29

External 7-Port USB Hub

- 7 USB-A female output ports
- USB-B female root port
- Plug & Play compatible
- Allows you to attach 127 USB devices to your PC
- LED indicators for port, status, and power
- Size: 7.9"L x 2.8"W x 1.1"H • Weight: 2.6 lbs.

Includes: 6VDC power adapter and USB-A male to USB-B female cable

Part No.	Description	1	10
191450ED	7-Port USB hub	$35.95	$26.95

USB Cables

	175417ED	175425ED	199806ED

USB-A Male to USB-B Male

Part No.	Description	1	10	25
175417ED	3' cable	$4.49	$3.99	$3.59
169359ED	6' cable	4.95	4.49	3.95
169367ED	10' cable	5.95	5.25	4.59

USB-A Male to USB-A Male

Part No.	Description	1	10	25
175425ED	3' cable	$2.95	$2.65	$2.39
175433ED	6' cable	4.95	4.49	3.95
175441ED	10' cable	5.95	4.49	3.15

USB-A Male to USB-A Female Extension

Part No.	Description	1	10	25
199806ED	10' cable	$5.95	$4.49	$3.15

USB-A to Joystick (DB15) Adapter

- Fully compatible with any 15-pin game port PC game controller
- Mode switch selector for maximum compatibility and flexibility
- USB Plug & Play
- Input connector: USB-A male
- Output connector: DB15-pin female connector
- Size: 3.2"L x 2.3"W x 1.3"H

System requirements: 586 or higher compatible; available USB-A port or Hub; Windows® 98 or higher

Includes: Manual and 3.5" drivers

Part No.	Description	1	10
189510ED	USB to game port adapter	$39.95	$31.99

USB Gender Adapter
USB-A to USB-B

- USB-A (female) to USB-B (male)

Part No.	Dimensions	1	10	25
169375ED	1.7"L x 0.6"W	$6.95	$6.35	$5.59

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See our latest additions of USB Products on the web.

Video and Monitor Cables

RGB Video Cables

- 75Ω coaxial cable; 6' or 10'
- Pin 1 red, pin 2 green, pin 3 blue, pin 14 white/black vertical, pin 13 gray horizontal
- 5 BNCs to HDDB15-pin male

118068ED

Part No.	Description	1	10	25
73648ED	6' cable (black)	$19.95	$17.95	$16.15
118068ED	10' cable (black)	31.95	28.95	21.95

VGA Monitor Cables

- Connects video card to VGA monitor
- IBM PC/XT and higher compatibles
- HDDB15 male to male

66173ED

Part No.	Description	1	10	100
66173ED	6' monitor cable	$6.49	$5.89	$5.29
148523ED	10' monitor cable	6.95	6.25	5.59

VGA Monitor Extension Cables

- Extends VGA monitor cable; HDDB15 male-to-female
- IBM PC/XT and higher compatibles

134041ED:
- HDDB15 female with hex nuts and HDDB15 male with thumbscrews

66165ED/148531ED:
- Thumbscrews on each end

134041ED

66165ED

Part No.	Description	1	10	100
134041ED	6' screws/hex nuts	$4.49	$3.95	$3.49
66165ED	6' thumbscrews	6.59	5.95	5.35
148531ED	10' thumbscrews	7.49	6.79	5.99

Do you see what you are looking for?
Log onto www.Jameco.com for much more.

DB9 Extension Cables

132345ED
25700ED

- All lines connected straight through
132345ED/196365ED:
- DB9 female to DB9 female cable with thumbscrews
25700ED/148515ED:
- DB9 male to DB9 female cable with thumbscrews
181665ED: • DB9 male to DB9 male cable

Part No.	Description	1	10	100	1000
132345ED	6' F-F..........	$4.95	$4.49	$3.95	$3.49
25700ED	6' M-F	4.95	4.49	3.95	3.49
196365ED	10' F-F	6.95	6.25	5.59	4.95
148515ED	10' M-F	7.49	6.79	5.99	4.95

DB25 Extension Cables

- All lines connected straight through
- Use to lengthen your standard serial cable or for switch box applications
- Thumbscrews to secure connectors
- Color: gray; except P/Ns **174001ED/175290ED:** black*

67256ED

Part No.	Desc.	Wt. (lbs.)	1	10	100	1000
174001ED	3' M-M*	0.6 ..	$4.79	$4.35	$3.89	$3.49
65787ED	6' M-M	0.5	6.49	5.89	5.29	4.89
39538ED	10' M-M	0.7	6.95	6.29	5.05	3.69
67070ED	25' M-M	1.4 ..	10.95	9.95	8.95	7.95
164291ED	3' M-F	0.4	4.29	3.89	3.09	2.35
175290ED	3' M-F*	0.4	2.95	2.69	2.25	1.59
163133ED	5' M-F	0.6	5.29	4.75	4.29	3.85
67256ED	6' M-F	0.6	6.45	5.79	5.25	4.49
39511ED	10' M-F	0.7	6.95	6.29	5.05	3.69
101995ED	25' M-F	1.4 ..	11.95	10.79	8.65	6.35

IEEE 488 Cables

A variety of cable lengths are offered to ensure that the IEEE system requirements are met (20 meters maximum length with a maximum of 15 devices). These cables are standard IEEE 488 cables with stackable 24-pin GPIB connectors on both ends.
- Color: gray

73154ED

Part No.	Description	Wt. (lbs.)	1	10	25
73154ED	1 meter	0.8	$36.49	$32.79	$29.49
115781ED	2 meter	1.2	37.95	34.19	30.95
115801ED	4 meter	2.0	34.95	29.75	22.29

PS/2 Keyboard Extension Cables

- Color: beige
- PS/2 computers
- 6-pin mini DIN female-to-male

28548ED

Part No.	Description	1	10	100
28548ED	PS/2 6' non-coiled	$4.35	$3.89	$3.49
111053ED	PS/2 10' non-coiled	5.49	4.99	4.39

AT-to-PS/2 and PS/2-to-AT Keyboard Adapter Cables

28003ED:
- Connects AT-type keyboards to PS/2
- 5-pin female DIN to 6-pin male mini DIN
85500ED:
- Connects PS/2 keyboard to AT
- 6-pin female mini DIN to 5-pin male DIN connectors

28003ED

Part No.	Length	Color	Wt. (lbs.)	1	10	100
28003ED	7.3"	Beige	0.6	$3.95	$3.49	$3.15
85500ED	11.3"	Beige	0.8	5.39	4.85	4.39

RJ11 & RJ45 Retractable Cables

These auto-reel retractable cables are compact and convenient solutions for the mobile professional.

208362ED

208362ED: RJ11 type
- For telephone and modem applications
- Cord length: 9'6"
- Includes: Inline coupler
208371ED: RJ45 type, Cat 5
- For telephone, modem & networking applications
- Cord length: 6'11"

208371ED

Includes: RJ45 right angle adapter and RJ45 to telephone outlet adapter

Part No.	Description	1	10
208362ED	RJ11 cable	$8.95	$7.95
208371ED	RJ45 cable, Cat 5	16.35	14.85

Save Space!
Slim-Line D-Sub Gender Changers

18497ED **119319ED** **119301ED**

These revolutionary slim-line gender changers are only 0.69" wide, eliminating the space problems caused by standard gender changers. When plugged into your existing cable, they add only 0.44" to the cable. All-metal cases.
- Captive locking screw (male)
- Captive locking nut (female)
- Grounding tangs (male)

Part No.	Description	1	10	100
18497ED	D-sub 9-pin male	$4.95	$4.49	$3.99
18489ED	D-sub 9-pin female	4.95	4.49	3.99
119319ED	D-sub 15-pin female HD....	4.29	3.89	3.49
119301ED	D-sub 15-pin male HD	4.95	4.49	3.95
18446ED	D-sub 25-pin male	4.95	4.49	3.99
18420ED	D-sub 25-pin female	4.95	4.49	3.99

AT and PS/2 Keyboard Adapters

159089ED:
  AT keyboard adapter
- Connects PS/2 keyboard to AT
- 6-pin female mini DIN to 5-pin male DIN

159089ED

157930ED:
  PS/2 keyboard adapter
- Connects AT type keyboards to the PS/2
- 5-pin female DIN to 6-pin male mini DIN (PS/2)

157930ED

Part No.	Length	Housing	1	10	100
159089ED	1.6"	Metal	$2.95	$2.65	$2.39
157930ED	1.7"	Plastic/metal	3.49	2.65	2.39

Switch Box Adapter Cables

177261ED:
- 2' gray 6-pin mini DIN M-M non-coiled cable for P/N 79177 switch box, see website
114913ED:
- 5' gray 5-pin DIN M-M coiled cable for P/N 114155 switch box, see website
174772ED:
- 6' black 6-pin mini DIN M-M
174908ED: • 6' gray 6-pin mini DIN M-M
112627ED: • 10' gray 6-pin mini DIN M-M non-coiled cable for P/N 79177ED switch box, see website

174772ED

Part No.	Description	Length	1	10	50
177261ED	6-pin mini DIN	2' (gray) ..	$2.95	$2.55	$1.89
114913ED	5-pin DIN	5' (gray) ..	4.95	4.49	3.95
174772ED	6-pin mini DIN	6' (blk)	4.95	4.25	3.19
174908ED	6-pin mini DIN	6' (gray) ..	5.75	5.15	4.65
112627ED	6-pin mini DIN	10' (beige)	7.95	7.25	6.49
205655ED	6-pin mini DIN	25' (beige)	8.95	7.95	6.95

Serial Null Modem Cables

180697ED   **180582ED**

- Molded type connectors
- Color: gray
- Weight: 0.4 lbs.
- Length: 10'
180697ED Pin outs:
  1–7 & 8; 2-3; 3-2; 4-6; 5-5; 6-4; 7 & 8-1
180582ED Pin outs:
  2-2; 3-3; 4-5 & 6; 5-7; 6 & 8-20; 7-8; (Serial Printer Null Modem)

Part No.	Description	1	10	50
180697ED	DB9 F to DB9 F	$6.79	$6.09	$5.49
180582ED	DB25 M to DB9 F	6.69	6.05	5.45

More @ Jameco.com

Jameco offers a selection of Apple® II & Macintosh® Accessories. See our website for the complete listing.

ATX 150-Watt

- Output:
  +3.3V @ 6A
  +5V @ 10A
  +12V @ 6A
  +5VSB @ 0.72A
  -5V @ 0.2A -12V @ 1A
- 20-pin ATX form factor
- Mating input conn.: suggest using P/N 38050ED power cord, pg 25 – not included • Built-in fan
- Input volt.: 115/230VAC @ 50-60Hz (auto switching) • Power on/off switch

Special Purchase LOW LOW PRICE

Part No.	Product No.	1	10	25
196189ED	MPW-6150F	$34.95	$31.49	$27.95

AT 250-Watt

- Output:
  +5V @ 20A
  +12V @ 10A
  -5V @ 0.5A
  -12V @ 0.5A
- Fits popular mini-vertical and desktop cases
- Input voltage: 110-220VAC @ 50-67Hz (switchable)
- One-year warranty
- Size: 5.5'L x 5.9"W x 3.4"H
- Weight: 2.0 lbs.

Part No.	Prod. No.	1	10	25
174465ED	LC250C	$49.95	$44.95	$39.95

23 More @ www.Jameco.com

Jameco is your Power Source. See our website for additional PC Power Supplies.

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Part Number	Mfr.	Product Number	Watts (W)	Output (VDC/A)	Input (VAC @ Hz)	Input Connector (Mating Connector/Cord)	Output Connector (Mating Connector)	Certification	Size (L" x W" x H")	Wt. (lbs.)	1	10	25
196189ED	Emaos	MPW-6150F*	150	+3.3/6, +5/10, +12/6, +5VSB/0.72, -5/0.2, -12/1	115/230 @ 50-60 switchable	3-prong AC receptacle (P/N 38050ED, pg 37)	ATX	UL/CUL/TUV/CE	7.5 x 4.0 x 1.6	2.5	$34.95	$31.49	$27.95
196111ED	SPI	FSP23560GT	235	+3.3/14, +5/22, +12/8, +5VSB/0.8, -5/0.3, -12/0.8	100/240 @ 50-60 switchable	3-prong AC receptacle (P/N 38050ED, pg 37)	ATX	UL/CUL/TUV/CE	5.6 x 5.9 x 3.4	3.2	34.95	26.25	18.35
152514ED	High Power	JE8250	250	+3.3/16, +5/25, +12/10, +5VSB/1.5, -5/0.5, -12/0.5	115/230 @ 50-60 switchable	3-prong AC receptacle with 6' power cord	ATX	UL/CSA/TUV	5.5 x 5.9 x 3.4	3.3	44.95	39.95	36.39
174465ED	Logic Concept	LC250C*	250	+5/20, +12/10, -5/0.5, -12/0.5	110/220 @ 50-67 switchable	3-prong AC receptacle with 6' power cord	AT	UL/CSA/TUV/CE	5.5 x 5.9 x 3.4	2.0	49.95	44.95	39.95
152194ED	American Media	JE2031	250	+3.3/14, +5/25, +12/10, +5VSB/1.5, -5/0.5, -12/0.5	115/230 @ 50-60 switchable	3-prong AC receptacle with 6' power cord	ATX	UL/CSA/TUV	6.0 x 5.5 x 3.4	3.5	49.95	44.99	40.49
155539ED	American Media	JE2033	300	+3.3/14, +5/30, +12/8, +5VSB/1.5, -5/0.5, -12/0.5	115/230 @ 50-60 switchable	3-prong AC receptacle with 6' power cord	ATX	UL/CSA/TUV	5.9 X 5.5 X 3.4	3.7	69.95	62.95	56.95

* See photo above

Computer Switches, Sharing Devices & Converters

ATEN SVGA Monitor Splitters

Duplicate a video signal from one source to monitors up to 210 feet away.

176866ED

- Suitable for SVGA, VGA & multisync monitors
- **176866ED: 2-channel**
- 1 HDDB15 male connector from PC to box; 2 HDDB15 female connectors from box to monitors
- Size: 6.6"L x 3.3"W x 1.1"H • Weight: 1.4 lbs.

133866ED

- **133866ED: 4-channel**
- Slide switch for video signal gain control
- Daisy chainable • One-year warranty
- Size: 8.8"L x 6.0"W x 1.9"H • Weight: 3.6 lbs.

Includes: Power adapter and manual

Part No.	Description	1	10
176866ED	2-channel monitor splitter	$49.95	$44.95
133866ED	4-channel monitor splitter	68.95	61.95

Bidirectional Non-Buffered Serial-to-Parallel Converter

- Bidirectional conversion of parallel and serial signals
- Serial interface: hardware handshake RTS/CTS, software handshake XON/XOFF; DCE/DTE selectable; parity: odd, even, or no parity; data bits: 7, 8
- Connectors: one DB25 female and one Centronics 36-pin male
- Stop bits: 1 or 2 • Baud rate: 300 to 38,400bps

Includes: AC adapter (9VAC @ 200mA) and manual

Part No.	Description	1	10	25
116935ED	Bi-converter	$49.95	$44.95	$39.95

ATEN K/V/M Switch Boxes for up to 4 Computers

- Selects any computer by hot keys or switch
- Serial and PS/2 mouse & keyboard emulation for automatic PC boot up
- Three stage cascadable for accessing more computers
- Supports SVGA, VGA and Multisync monitors
- Keyboard LED status recorded and restored while switching among computers
- Auto scan for monitoring PC periodically
- One year warranty
- Size (149382ED): 9.0"L x 6.0"W x 2.0"H
  (149391ED): 10.0"L x 7.0"W x 3.0"H

149382ED (front)
149382ED (rear)
149391ED (front)
149391ED (rear)

Includes: Manual & power supply (9VDC @ 600mA)

Part No.	Description	Wt. (lbs.)	1	10
149382ED	2 computers	4.0	$149.95	$129.95
149391ED	4 computers	7.1	229.95	209.95

Find it @ www.Jameco.com

See our website for more Switch Boxes and Converters.

2-Way & 4-Way Monitor/Keyboard/ Mouse-to-PC Switch Boxes

HDDB15/5-Pin DIN/DB9M

- Allows 2 or 4 users to share one PC system
- Internal diodes maintain keyboard in powered state when switching between systems

132249ED

- Each user may need 2 or 4 sets of the following cables: P/N 66173ED, DB15HD M-M for monitor; P/N 114913ED, 5-pin DIN M-M for keyboard; P/N 132345ED, DB9 F-F for serial mouse (cables, pg 56)
- Size: 7.5"L x 5.3"W x 2.8"H

134017ED

Part No.	Description	Wt. (lbs.)	1	10
132249ED	2-user switch box	1.6	$17.95	$15.95
134017ED	4-user switch box	2.3	21.95	19.95

Monitor/Mouse/Keyboard Cables

- 6' or 32'
- HDDB15 male/ female for monitor, 5-pin DIN male/ female for keyboard, and DB9 male/female for mouse

141284ED

Part No.	Description	Wt. (lbs.)	1	10
141284ED	6' cable	1.6	$22.95	$19.95
141276ED	32' cable	4.8	39.95	35.95

Color Code Legend SALE REFURBISHED CLOSEOUT

Order 24/7 Toll Free 1-800-455-6119

JAMECO

Keyboard/Monitor-to-PC Switch Box

HDDB15/5-Pin DIN Female

- 2-way switch box
- For 2 PCs connected to 1 keyboard and 1 monitor – diodes maintain keyboard in powered state
- Size: 6.0"L x 4.0"W x 2.3"H
- Weight: 1.3 lbs.

Part No.	Description	1	10
114155ED	2 computers $14.95		$13.49

Serial Port-to-PC Switch Boxes

DB9 Female

- Connects 2 or 4 serial ports to a PC

79126ED:
- 2-serial port switch box
- Size: 6.0"L x 4.8"W x 2.5"H
- Weight: 1.2 lbs.

79126ED

183417ED:
- 4-serial port switch box
- Size: 6.1"L x 4.0"W x 2.2"H
- Weight: 1.3 lbs.

183417ED

Part No.	Description	1	10
79126ED	2-serial port switch box $9.95		$8.95
183417ED	4-serial port switch box 19.95		17.95

Parallel Printer-to-PC Switch Boxes

DB25 Female

- Connects 2 or 4 PCs to one printer

20095ED: 2-PC switch box
- Size: 6.0"L x 5.8"W x 2.3"H
- Weight: 1.3 lbs.

20095ED

SALE

155512ED: 2-PC switch box
- Size: 7.2"L x 4.9"W x 2.5"H
- Weight: 2.3 lbs.

Includes: DB25 M-M cable

155512ED

20124ED: 4-PC switch box
- Size: 6.0"L x 4.0"W x 2.4"H
- Weight: 1.5 lbs.
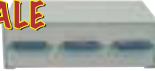
20124ED

Part No.	Description	1	10
20095ED	2 PC switch box $8.95		$7.95
155512ED	2 PC switch box 6.49		5.54
20124ED	4 PC switch box 14.95		13.49

4 & 2-Port Auto Printer Switches

- Connects up to 4 PCs to 1 printer or 4 printers to 1 PC
- Non-powered
- Compact size
- Auto form-feed selectable
- Transparent to user

ATEN

177421ED

177421ED: bidirectional; 3.5" software included; 5 DB25 female connectors

SALE

177412ED: 5 DB25 female connectors

177404ED

177404ED: 3 DB25 female connectors

Part No.	Description	1	10	25
177421ED	1 to 4 or 4 to 1 .... $7.75		$6.96	$6.26
177412ED	4 to 1 printer 3.49		3.15	2.89
177404ED	2 to 1 printer 2.15		1.95	1.75

19" Rack Mount Enclosures

Perfect for equipment setup in home, studio or laboratory.

17"

D

H2

H1

19"

- Ventilation holes on all sides
- Front and back panels are steel w/ aluminum, pre-punched face plates
- Top, bottom, sides durable 0.035" steel
- Front panel: 0.12" Thick
- Black front panel
- All enclosures have handles except P/N 132812ED

Includes: Mounting screws

Part Number	Dimensions (In.)			Weight (lbs.)	Pricing	
	H1	H2	D		1	10
132812ED	1.73	1.25	9.75	6.2	$39.95	$35.99
132821ED	3.46	3.0	9.75	7.9	47.95	43.49
132839ED	3.46	2.88	11.75	9.1	53.95	48.59
132847ED	5.22	4.75	11.75	10.6	63.95	55.99
132855ED	5.22	4.75	13.50	11.8	73.95	66.95

Cabinet Mounting Plate for 19" Cabinet

- Use as industrial chassis mounting plate for servers, PCs or patch panels
- Made of industrial grade steel and aluminum
- Size: 19.0"W x 15.8"D x 3.5"H
- Color: beige
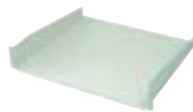
Part No.	Description	1	10
149500ED	Cabinet mount plate $39.95		$35.95

Removable HD Rack and Insert

- For quick drive swapping
- Removable storage for 3.5" IDE drive
- Power LEDs
- Keylock for security

196040ED:
- Size: 5.8"W x 8.5"D x 1.5"H
- Weight: 1.2 lbs.

196040ED

196031ED:
- Size: 4.1"W x 7.5"D x 1.6"H
- Weight: 0.8 lbs.

Includes: Inner cable with IDE connector

Part No.	Description	1	10	25
196040ED	IDE rack w/ insert .. $27.95		$20.95	$14.69
196031ED	Insert for 196040ED 19.95		17.99	15.99

19" Cable Management Racks

Make your cable looms neat and organized with our 2 unit cable management rack. Simply slip in the cable between spaces and route them to their destinations.

208776ED

209031ED

SALE

Part No.	Description	1	10
208776ED	Ducting type cable holder $19.95		$17.99
209031ED	C clamp type cable holder 17.89		16.89

**Don't worry about back orders.
Over 99% of our products are in stock!**

Discover More @ www.Jameco.com

More Computer Rack Mount Hardware and Cases on our website. Log on today to see complete listings.

Relay Rack & Rack Panels

Rack:
- Black powder coat finish
- 10-32 threaded holes
- Used with 19" wide panels
- 16 gauge CRS base
- Size: 84"H
- 1/8" aluminum side rails
- Size (at base): 19.8"W x 15.3"D x 84"H

133751ED

19" Wide Panel:
- 10-gauge black aluminum
- Size: 1.75"H
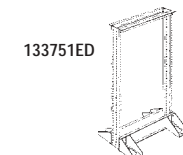
133276ED

Part No.	Description	Wt. (lbs.)	1	10
133751ED	Relay rack	21.8	$179.95	$161.95
133276ED	Rack panel	0.4	9.45	8.49

IDE Removable 5.25" Rack Kit for 3.5" Hard Drive w/ Fan

- Supports DMA 66 hard drive
- Removable storage for 3.5" hard drives
- LED for power and hard drive activity
- Retaining lock mechanism
- 12VDC @ 50mA fan
- CFM rating: 5.6
- Size: 5.9"W x 8.7"D x 1.6"H
- Weight: 1.3 lbs.

Includes: Mounting hardware

Part No.	Description	1	10	25
170608ED	Rack kit (IDE) $29.95		$26.95	$23.95

Bidirectional Non-Buffered Serial-to-Parallel Converter

- Bidirectional conversion of parallel and serial signals
- Serial interface: hardware handshake RTS/CTS, software handshake XON/XOFF; DCE/DTE selectable; parity: odd, even, or no parity; data bits: 7, 8

ATEN

- Connectors: one DB25 female and one Centronics 36-pin male
- Stop bits: 1 or 2
- Baud rate: 300 to 38,400bps
- Size: 4.0"L x 2.5"W x 1.0"H
- Weight: 0.8 lbs.
- One-year warranty

Includes: AC adapter (9VAC @ 200mA) and manual

Part No.	Description	1	10	25
116935ED	Bi-converter $49.95		$44.95	$39.95

Power Strip Outlet Saver

With our high quality power strip outlet saver, you can use all the outlets on your surge suppressors, UPS, and outlet strips. Just plug a bulky power adapter into this cable and free up your other outlets.

199777ED

Before
Two Outlets Blocked

After
Every Outlet is Usable
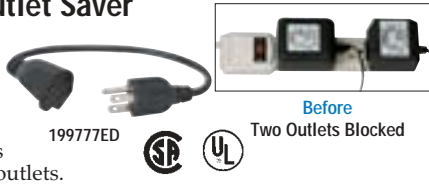
Part No.	Description	Length	Cord Type	1	10	100
199777ED	AC Power cord (black)	1'	SVT	$1.69	$1.55	$1.39
208338ED	AC Power cord (beige)	1'	SVT	1.69	1.45	1.09

Power Strip Saver Double Outlet

Get full use of your power strips. Plug those bulky adapters into these cables and plug the cables into the power strip. Need the extra adapter to be plugged into the power strip? Use the "Y" power strip saver to add an extra adapter.

Part No.	Description	1	10	100
208346ED	Power strip saver	$2.89	$2.65	$2.35

TRIPP·LITE isobar® — Surge Protectors

139686ED

185113ED

ULTIMATE LIFETIME INSURANCE

The world's best known, most advanced surge protectors provide total protection against surges, spikes and line noise.

- Up to $50,000 Ultimate Lifetime Insurance covers Isobar and connected equipment against surge damage for life!
- Diagnostic indicators on Ultra versions alert you to improper outlet wiring, loss of AC power, and damage to protection circuitry
- "Cascade Circuitry" allows you to chose increased noise protection level for your most sensitive equipment • UL 1449 and 1283 listed • Lifetime warranty
- IsoTel model has dual RJ11 jacks for complete modem/fax surge protection
- 4-outlet protectors: 6' cord; 8 and 12-outlet protectors: 12' cord

Isobar Premium 19" Rack Mount Surge Protector

Part No.	Product No.	Joules	Description	Wt. (lbs.)	1	10
139686ED	IBAR12RM	750	12 outlet, 2 isolated filters	4.7	$119.95	$107.99

Isobar Ultra Premium Surge Protector

Part No.	Product No.	Joules	Description	Wt. (lbs.)	1	10
19001ED	ISOBAR 8U	2350	8 outlet, 4 isolated filters	3.5	$69.95	$62.95

Isotel AC/Phone Line Surge Protector

Part No.	Product No.	Joules	Description	Wt. (lbs.)	1	10
185113ED	ISOTEL 4U	2700	4 outlet, 2 isolated filters	2.7	$39.95	$35.95

POWERWARE — 300-VA UPS System

With Dual Outlet
- Protects against blackouts and brownouts
- Battery charging: less than 6 hours to 90% usable capacity
- Battery backup time: 5–10 mins. @ full load; 10–20 mins. with partial load
- Input voltage: 120VAC @ 60Hz
- Output voltage: 120VAC
- Output current: 2.5 amps (full load)
- Size: 3.4"W x 5.8"D x 13.2"H   • Weight: 12.4 lbs.

Part No.	Product No.	Description	1	10
179961ED	PRB300A	300-VA UPS system	$59.95	$53.95

6-Outlet Surge Protector

- Standard 6-outlet surge suppressor
- Heavy-duty power cord (14AWG x 3)
- RESET/OFF switch with built-in 15A circuit breaker
- Clamping voltage: 400V
- Maximum surge dissipation: 900 joules
- Maximum surge voltage: 6500V
- Maximum spike current: 4500A   • Weight: 0.9 lbs.

Part No.	Description	1	10	100
216485ED	Surge suppressor	$6.95	$6.25	$5.59

Around-the-Clock Ordering 24x7x365
www.Jameco.com   1-800-455-6119

CD-ROM, Floppy, Hard Drives and Accessories

1.44MB 3.5" Internal Floppy Disk Drives

118922ED   **115490ED**

- IBM PC/XT and higher compatibles
- Compatible with DOS versions 3.3 or higher
- Determines if disk is high or low density
- Size: 4.0"W x 5.9"D x 1.0"H (actual drive size)

Part No.	Mfr. Cross Ref. No.	Mfr.	Color	1	10
118922ED	MPF520-1	Sony	Beige ...	$29.95	$26.95
115490ED	FD235	TEAC	Beige	21.95	19.95

3.5" Drive Mounting Kit

- For mounting a 3.5" floppy drive into a 5.25" slot

Includes: Beige faceplate

Part No.	Description	1	10	50
32088ED	Drive mounting kit ...	$7.69	$6.95	$6.25

Internal IDE CD-ROM Drives

- 5.25" half-height design
- One-year warranty
- Manufacturer varies

Includes: Audio cable

SALE

189819ED

Part Number	Speed	Buffer	kB/sec.	Wt. (lbs.)	1	10
149307ED	24x	256kB	3600	2.6 ..	$34.95	$32.95
189051ED ⌘	32x	128kB	4800	2.6	34.95	31.49
189069ED ⌘	40x	128kB	6000	2.6	39.95	35.95
189819ED	40x	128kB	6000	2.6	34.95	31.25
162042ED	44x	128kB	6600	2.5	44.95	35.99
189077ED ⌘	48x	128kB	7200	2.6	49.95	44.95
189448ED	56x	128kB	8400	2.3	59.95	53.95

⌘ Pull

See our complete selection of products @ www.Jameco.com

Aluminum IDE Removable Hard Drive Rack with Fan

Easily remove a hard drive from your PC or workstation, safeguard your data and an ideal way to back-up data. Because our Rack Kit is hot removable, you can remove your hard drive without shutting down your computer operations. Aluminum case transfers heat away from the drive for longer and more reliable drive life.

- 5.25" rack kit for 3.5" hard drives
- Drive activity LED   • Built-in fan
- Aluminum rack   • Keylock for security

Part No.	Description	1	10	25
211035ED	Rack kit (IDE)	$29.95	$26.95	$23.95

Drive Mounting Rails

SALE

- AT and compatibles   • 8 mounting holes

Includes: All necessary mounting hardware

Part No.	Description	1	10	25
34323ED	Mounting rails (2)	$.27	$.25	$.23

IDE, EIDE & SCSI Hard Drives
PC/XT/AT and Compatibles
- IDE drives over 528MB require EIDE controller or higher
- Manufacturers may vary and capacity may exceed specification; we carry Seagate, Western Digital, IBM and others.
- All are 1" in height

SALE

124978ED

Part No.	Capacity	Description	Conn. Pins	Wt. (lbs.)	Average Access Time (ms)	Warranty	1	10
115764ED ⌘	425MB	3.5" IDE	40	1.7	12.5	3 mos.	$79.95	$71.95
118949ED ⌘	850MB	3.5" IDE	40	1.7	14	1 year	84.95	75.95
124978ED ⌘	1.27GB	3.5" IDE	40	1.1	14	1 year	79.95	71.95
146325ED ⌘	1.7GB	3.5" IDE (Fast ATA-2)	40	1.1	12	1 year	99.95	89.95
146333ED ⌘	2.5GB	3.5" EIDE (Fast ATA-2)	40	1.0	11	1 year	99.95	79.99
151036ED ⌘	3.2GB	3.5" EIDE (Ultra DMA33)	40	1.1	11	1 year ..	114.95	105.95
151044ED ⌘	4.3GB	3.5" EIDE (Ultra DMA33)	40	1.1	11.5	1 year ..	119.95	109.95
151052ED ⌘	6.4GB	3.5" EIDE (Ultra DMA33)	40	1.1	9.5	1 year ..	129.95	116.95
162261ED ⌘	8.45GB	3.5" EIDE (Ultra DMA33)	40	1.2	9.5	1 year ..	139.95	125.95
189085ED ⌘	1.0GB	SCSI	50	1.3	9.6	3 mos.	39.95	35.95

⌘ Pull

Thermoelectric Cooler Chips
- Cools down to -30˚C (dependent on external temperature)
- T max. = 60˚C
- 20 AWG wire leads, 4" long
- Heat or cool by changing direction of current
- Operating voltage: 15.4VDC nominal

SALE 172048ED

Part Number	Mfr. Cross Ref. No.	Couples*	Watts	Voltage (max.) DC	Current (max.) A	Size (L" x W" x T")	Pricing 1	Pricing 10
172030ED	TEC30	71	19.7	8.4	4	1.2 x 1.2 x 0.2	$19.95	$17.95
172048ED	TEC40	127	35.6	15.4	4	1.6 x 1.6 x 0.2	25.95	22.95
172056ED	TEC50	127	79.1	15.4	8	2.0 x 2.0 x 0.2	41.99	33.59

* Couples: # of P&N type semiconductor pairs connected electrically in series

External SCSI Cables for Complete Connectivity
- For PC/XT/AT and compatibles
- All lines connected

SALE 73162ED   137568ED

Part No.	Description	1	10	100
73162ED	Male 50-pin Centronics to male 50-pin Centronics SCSI-I to SCSI-I (6')†	$6.95	$5.95	$4.45
118084ED	Male 50-pin Centronics to male HPDB50 cable SCSI-I to SCSI-II (6')	14.95	13.49	11.95
137568ED	Male HPDB68-pin to male HPDB50-pin SCSI-III to SCSI-II (3')	12.95	11.49	9.95

† Also Macintosh® compatibles, see above for SCSI type connector guide

EZ/CDPrint Printer

Introducing the EZ/CDPRINT, the first printer that delivers a low-cost way to create professionally printed CD-R's, Credit Card CD-R's, CD Jewel case liner notes and standard color paper documents. Don't settle for unsightly felt pen scribbles or hard-to-use labels on your CD's. Now print full color images, photos, and text directly on your CD in less than a minute. EZ/CDPRINT is ideal for amateur musicians, family photos, school projects, customer presentations, interactive training or anywhere an extra edge of professional presentation counts.

220716ED   220708ED

- Prints a full color CD in about a minute
- Compatible with all inkjet printable CD-R & DVD-Rs
- Special PC and Mac software and templates to print CD, liner notes and more
- Both USB and parallel port connections • Uses standard C60/C62 Epson inkjet cartridges
- Prints paper documents at 12ppm monochrome & 7ppm color • Printer size: 18.0"W x 8.0"D x 7.0"H

Requires: Windows® 95/98/2000/ME/XP, Mac OS 8.1 or higher operating systems

Includes: Printer, PC and Mac printer and template software, three printable disks

Part No.	Description	1	5
220708ED	CD printer (software, cable, ink cartridges and CD-R's)	$358.95	$338.95
220716ED	100 pk. 40x 700MB 80 min. CD-R	48.95	47.45

Computer Card Brackets

Fig.: 1 2 3 4 5

- For securing cards into bus slots
- Fits standard PC/XT/AT cases • Length: 4.75"
- See pg 48 for DB connectors

Part No.	Description	Fig.	1	10	100
11754ED	Blank back panel	1 ..	$1.79	$1.59	$1.45
101717ED	For DB9 connector	2 ...	1.79	1.59	1.45
101733ED	For DB25 connector	3 ...	1.79	1.59	1.45
101741ED	For DC37 connector	4 ...	1.79	1.59	1.45
101830ED	For DB9/DB25 conn.	5 ...	1.79	1.59	1.45

CD Cases

208485ED   208493ED

Part No.	Description	1	10	100
208485ED	Slim black 10 pk.	$3.59	$3.19	$2.89
208493ED	Slim asst. color 10 pk ...	4.95	4.45	3.95

Back Panel PC Cooling Fan
- Type: sleeve axial fan
- Back panel mountable
- Operating volt.: 12VDC @ 140mA
- Airflow: 43 CFM
- Noise ratio: 26dBA
- Power: 1.7W
- 10.5" wire with 4-pin Molex power connector
- Size: 4.3"L x 3.5"H x 1.1"Thick • One-year warranty

Part No.	Description	1	10	50
152240ED	PC cooler fan	$19.95	$17.95	$15.95

ATX Power Supply 15" Extension Cable
- For use with ATX power supplies
- 20-pin ATX male and female connectors
- Color coded to ATX power supply code
- 15"L x 18 AWG (wires)

Part No.	Mfr. Cross Ref. No.	1	10	100
170237ED	ATX-400-RV	$6.49	$5.85	$5.29

5.25" Disk Drive Power Splitter
- IBM PC/XT and higher compatibles
- Splits 4-line Molex male into 2 females

SALE

Part No.	Drive	AWG	Length	1	10	100
28353ED	5.25"	18	5"	$2.95	$2.69	$2.15

SCSI Type / Connector Reference Table

SCSI type	DB25	50-pin Centronics	50-pin Header	Half pitch DB50	Half pitch DB68	VHD68 Centronics	VHD80 Centronics
SCSI-I		✔	✔	✔			
SCSI-II				✔	✔		
SCSI-II wide						✔	
SCSI-III						✔	✔
RAID: SCA, SCA-2							✔

CPU Heat Sinks and Fan

- Excellent for avoiding CPU overheating during extended system on-time
- High efficiency cooling fans
- Easy installation – just snap it in

196242ED **181278ED** **118092ED**

See page 31 for Heat Sink Compounds

See page 22 for CPU's

Part No.	Description	Size (H" x W" x D")	Agency Approvals	1	10	50	100
196242ED	Heat sink w/ fan for socket 7 (ATX)	2.26 x 2.12 x 1.07	UL/CE/TUV	$9.95	$8.95	$7.95	$6.95
181278ED	Heat sink w/ fan for socket 7 (ATX)	2.12 x 2.05 x 1.67	UL/CE/CSA	8.49	7.65	6.89	6.19
118092ED	Heat sink w/ fan for 586 CPU w/ snap	2.18 x 2.30 x 1.00	UL/CE/TUV	4.95	4.49	3.59	2.69

DIMM and SIMM Memory

148398ED **148443ED**

Part Number	Mfr. Cross Ref. No.	Pins	Description		1	10
148398ED	4MBX64SDRAM	168	4M x 64	10ns Syn. DRAM DIMM (32MB)	$16.95	$15.95
148401ED	8MBX64SDRAM	168	8M x 64	10ns Syn. DRAM DIMM (64MB)	35.95	32.29
148419ED	16MBX64SDRAM	168	16M x 64	10ns Syn. DRAM DIMM (128MB)	69.95	62.99
130729ED	JEEDO7208	72	2M x 32	60ns SIMM EDO module (8MB)	11.95	9.95
130711ED	JEEDO7216	72	4M x 32	60ns SIMM EDO module (16MB)	24.95	22.95
148443ED	JEEDO7232	72	8M x 32	60ns SIMM EDO module (32MB)	43.95	39.59
148451ED	JEED07264	72	16M x 32	60ns SIMM EDO module (64MB)	29.95	28.45
75184ED	P364000-XX-6	72	4M x 36	60ns SIMM module (16MB)	47.95	43.15
75168ED	P364000-XX-7	72	4M x 36	70ns SIMM module (16MB)	45.95	41.49
148460ED	8MBX36-60	72	8M x 36	60ns SIMM module (32MB)	87.95	79.19
53701ED	94000S-70	30	4M x 9	70ns SIMM module (9 chips)	10.15	9.15

Pentium II Class Motherboards

- ATX motherboards are compatible with Intel® Pentium II Processors

SALE

See more @ www.Jameco.com

188091ED

185367ED

Part No.		188091ED	185367ED
Processor		Slot 1*	Slot 1
Speed		233-333 MHz	233-333 MHz
Chip set		440LX	440LX
BIOS		Award	Award
Memory		EDO (168 pin)	EDO (168 pin)
Capacity		768MB	384MB
Slots		3	3
Speed		66 MHz	66 MHz
Slots			
PCI		4	4
AGP		1	1
ISA		3	3
Interfaces		3	
Hard Drive		4 EIDE	4 EIDE
Floppy		2	2
USB		2	2
Parallel		1	1
Serial		2	2
IrDA		None	None
Sound		None	None
Keyboard		PS/2	PS/2
Video		None	None
Size		12" x 7.5"	12" x 7.4"
Weight		2.5 lbs.	2.5 lbs.
Price	1	$30.15	$27.29
	10	$27.45	$24.49

* Also supports the Intel Celeron™ processor

Video Capture PCI Card with Camera

- Plug & Play PCI specification version 2.1 compliant
- CIF (common interlace format) for image capturing
- True motion codec (compression & decompression)
- Video conferencing, video messaging, editing & manipulation software suite
- NTSC/PAL/SECAM composite video capture at a full 640 x 480 res. with 24-bit color depth • Capture & compress video at rates of 30 frames per second

System requirements: Windows® 95 or better; Pentium® 133MHz or better; 16MB of RAM; 46MB hard disk space, 4X CD-ROM; PCI video board with 2MB of memory; 640 x 480 display with 8-bit color depth; available PCI slot.

Includes: Manual on CD-ROM, CD-ROM drivers, and camera

SALE

Part No.	Description	Size (L"xW")	Weight (lbs.)	1	10	25
180110ED	Video capture card	4.8 x 2.2	0.8	$47.79	$42.95	$38.75

ISA 16-Bit Super VGA Card

512KB on Board

- 1024 x 768 resolution in non-interlaced and interlaced modes
- Supports 16 colors; requires 1MB video RAM
- Supports VESA standard graphics & text modes
- Output HDDB15 female (analog)
- Emulates VGA, EGA, CGA, MDA & Hercules modes
- One-year warranty

Requirements: IBM AT and higher compatibles

Includes: software and manual

Part No.	Description	1	10	25
104660ED	VGA card	$49.95	$44.95	$39.95

VESA 24-Bit Graphics Accelerator Card

1MB on Board

Increases the speed of graphics and windowing programs by up to 15 times that of standard VGA.

- Provides 24-bit true color at 640 x 480 pixels, 16M colors
- Connector: HDDB15 female
- On board memory: 1MB, expandable to 2MB using 256k x 16 DRAM P/N 128688ED, pg 22
- Non-interlaced/interlaced modes supported
- Weight: 0.7 lbs. • One-year warranty

Requirements: Intel® 486 & higher compatibles

Part No.	Description	1	10
137285ED	Graphics accelerator	$31.29	$27.99

PCI Graphics Accelerator Card

- High performance SIS6326 8MB PCI graphics accelerator
- 800K polygon/sec
- Supports texture, transparency, blending, wrapping and mirror, fogging and blending, point sampled, linear and bi-linear texture filtering
- Built-in direct draw accelerator
- Supports per pixel texture perspective correction
- 14-bits resolution in IDCT transformation
- Supports Z & alpha buffer • Size: 5.5"L x 2.5"W
- Built-in NTSC/PAL video encoder • Weight: 0.4 lbs.

Includes: CD-ROM manual and drivers

Part No.	Description	1	10
210833ED	PCI accelerator card	$39.95	$35.95

Color Code Legend
SALE REFURBISHED CLOSEOUT

JAMECO®

QTRONIX. Win 95 104-Key Keyboard with Jumbo Trackball

- PC/AT and PS/2 compatible w/ DOS 3.0 or higher
- "N-Key" roll-over for quick typists
- Tactile click sound and feel • Weight: 3.7 lbs.
- Size: 19.0"L x 6.8"W x 1.4"H • One-year warranty

Includes: Software and AT cable adapter

Part No.	Description	1	10	25
128717ED	Scorpius 35PM/NET ...	$99.95	$90.95	$84.95

COMPAQ 101-Key Keyboard

SALE

- For PS/2 systems
- Tactile touch
- LED indicators for Num, Caps, and Scroll lock
- 12 function keys with separate cursor and numeric keys
- Recommend using adapter P/N 85500ED or P/N 159089ED, pg 56
- Size: 18.3"L x 6.5"W x 1.3"H • Weight: 3.6 lbs.

Part No.	Description	1	10	25
191530ED	101-Key Keyboard ...	$19.95	$16.99	$12.75

QTRONIX. 22-Key Serial Keypad

- Tactile click-sound and touch
- Auto repeat function
- 9600 bps, data bits: 8, stop bits: 1, start bit: none, no parity
- Serial DB9 connector
- 2-key rollover
- Color: beige
- One-year warranty
- Size: 6.2"L x 4.2"W x 1.3"H
- Weight: 0.8 lbs.
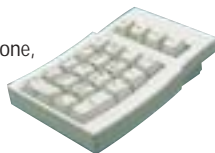
System requirements: IBM PC/XT or higher compatibles; and MS DOS 3.X

Includes: 3.5" driver diskette and manual

Part No.	Description	1	10	25
129357ED	Scorpius 22RW	$39.95	$35.95	$32.49

QTRONIX. 17-Key PS/2 Keypad

A compact keypad designed for use with IBM compatible laptops and desktop PC.

- Auto-repeat function
- Tactile click sound and touch
- Switch life of 20 million cycles
- For IBM PS/2 and compatibles
- Two key roll over
- Installs into 6-pin mini DIN keyboard connector (no software required)
- One-year warranty
- Size: 5.6"L x 3.4"W x 0.9"D

Part No.	Description	1	10	25
151811ED	Scorpius 20PB	$34.95	$31.49	$27.95

Ask About Jameco's 30-Day Money Back Guarantee

3-Button Serial Mouse

- Microsoft® mouse compatible
- IBM PC/XT and higher compatibles
- Size: 4.3"L x 2.3"W x 1.2"H

Part No.	Description	1	10	50	100
104441ED	Serial mouse	$4.95	$4.49	$4.05	$3.65

QTRONIX. USB or PS/2 3-Button Optical Wheel Mouse

- Ergonomic style 3-button optical wheel mouse
- High tech optical sensor for all surface types
- Size: 3.9"L x 2.3"W x 1.5"H

System requirements: IBM PC or compatible, Windows® 98/2000/ME/XP, available PS/2 or USB port

Part No.	Description	1	10	25
199591ED	Lynx-LVII...............	$29.95	$26.95	$24.25

QTRONIX. Trackball with Menu Software

- Detachable wrist strap
- Variable resolution (20-6400 dpi)
- One million cycle life tactile switches
- Ergonomic design
- 3.5" disk • One-year warranty
- Size: 5.5"L x 4.6"W x 2.0"H

System requirements: IBM PC/XT and higher compatible systems; MS DOS 3.3 or later, Windows® 95

Part No.	Description	1	10	25
128995ED	LIBRA 90 PM NET ...	$29.95	$26.95	$24.25

ATEN K/V/M Switch Boxes for up to 4 Computers

- Selects any computer by hot keys or switch
- Serial mouse, PS/2 mouse & keyboard emulation for automatic PC boot up
- Three stage cascadable for accessing more computers
- Supports SVGA, VGA and Multisync monitors
- Keyboard LED status recorded and restored while switching among computers
- Auto scan for monitoring PC periodically

149382ED (front)
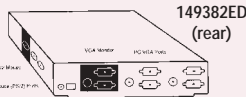
149382ED (rear)

Includes: Manual & power supply (9VDC @ 600mA)

Part No.	Description	Wt. (lbs.)	1	10
149382ED	2 computers	4.0	$149.95	$129.95
149391ED	4 computers	7.1	229.95	209.95

16 More @ www.Jameco.com

See our website for our complete selection of keyboards and mice.

AverKey *Pro* PC to TV Converter Box

- Converts VGA video or Macintosh® 640 x 480 to standard NTSC
- Built-in flicker filter
- Resolution: 800 x 600
- TV brightness control
- Compatible w/ Microsoft® Windows® 3.0 and higher
- Size: 6.0"L x 4.0"W x 1.0"H • Weight: 2.2 lbs.

System requirements: VGA-based PC, DOS 3.0 or higher, 640kB RAM or larger

Includes: Compact PC to video converter box, transformer, cables and manual

Part No.	Description	1	10
167193ED	Video signal pro	$109.95	$99.95

SMK RF Modulator

- Output frequency: NTSC Ch. 3/4, switch selectable
- 12VDC RF modulator
- Operating voltage: 12V@ 50mA max.
- RF output impedance: 75Ω (F-type connector)
- Video modulation: 1.0V p-p
- Audio FM deviation: 1.4V p-p
- PC connections: solder tab connectors
- Size: 1.7"L x 1.7"W x 0.7"H • MFG. #: WMN2144-01

SALE

Part No.	Description	1	10	50	100
141639ED	RF modulator ..	$4.95	$4.49	$3.59	$2.65

480-Watt Multimedia Amplified Speakers

- Input voltage: 120VAC
- 2 speakers
- Magnetically shielded
- 2-channel stereo amplifier
- Push button type power switch with LED indicator
- Knob controls for volume, bass & treble
- Size: 5.5"W x 7.0"D x 9.1"H • Weight: 5.3 lbs.

Part No.	Description	1	10
196066ED	480W speakers	$39.95	$35.95

Harman/Kardon Multimedia Amplified System

- 4.5 watt RMS per amplified speaker
- Transducer: 3" full range driver, magnetically shielded
- Frequency range: 90Hz to 20kHz

SALE

- Volume control, bass and trebel control, LED indicator and headphone jack • Weight: 4.7 lbs.
- Size: 8.5"H x 4.5"W x 5.0"D (per speaker)

Includes: 16VAC @ 1A power supply

Part No.	Description	1	10
211001ED	H/K speaker system	$14.49	$12.95

Hands-Free Condenser Microphone

- Cord length: 8'
- Connector: 3.5mm male stereo plug
- Size: 1.9"L x 1.2"W x 0.3"H
- One-year warranty

SALE

Part No.	Description	1	10	50
135247ED	Microphone	$3.69	$3.15	$2.35

5.6" Color TFT Monitor

NTSC Format
- TFT color LCD display
- 224,640 pixel display resolution
- Built-in 1 watt speaker
- Brightness, color and volume adjustments
- Video input: 1.0Vp-p; 75Ω
- Audio input: 2Vp-p; 2kΩ
- Size: 6.1"W x 4.8"H x 1.2"D
- Weight: 2.6 lbs.

Includes: RCA cable, mounting stand with hardware and 12VDC @ 500mA power supply

Part No.	Description	1	10
201702ED	5.6" TFT color monitor	$279.95	$259.95

14" SVGA Color Monitor

- 13" diagonal view
- 0.28mm dot pitch
- HDDB15 male connector
- Power, contrast, brightness, horizontal and vertical position, recall and trapezoid knob adjustments
- Resolution: 1280 x 1024 @ 60Hz
- Input voltage: 100-240VAC @ 50-60Hz
- Size: 14.2"W x 14.6"D x 13.5"H • Weight: 25 lbs.
- Refurbished (mfr. may vary)

Requirements: IBM PC/XT or higher compatible
Includes: Power cable, tilt and swivel base

Part No.	Description	1	10
174537ED	13" diagonal view	$69.99	$64.99

10" Black & White Security Monitor with Audio

- EIA format
- 9" viewable screen
- Resolution: 700 line
- LED indicator for power
- Push down front panel for vertical hold and size, brightness, volume, and contrast adjustments, power on/off switch
- Horizontal frequency, focus and sub-brightness adjustment, impedance input switch, 1 BNC female & 1 RCA jack for audio/video input/output
- Input voltage: 120VAC @ 60Hz (2-prong 5' cable)
- Size: 9.3"W x 12"D x 9.1"H • Weight: 15 lbs.

Includes: Manual

Part No.	Description	1	10
192719ED	10" black & white monitor ..	$119.95	$95.95

4" TFT LCD Monitor

NTSC Format
- TFT color LCD
- Resolution 234 x 383 dpi
- Backlight: cold cathode fluorescent lamp
- Power source: 12VDC @ 400mA
- 5" lead wire with 4 position molex type pwr. conn.
- Tint color and brightness adjustable
- Size: 4.1"L x 3.3"W x 0.7"H (display)
- Size: 4.7"L x 3.3"W x 1.3"H (unit)
- Weight: 0.7 lbs.

Part No.	Description	1	10
172742ED	4" color LCD monitor	$159.95	$149.95

Color Camera Board

NTSC Format
- 1/3" CCD image sensor
- 330 TV lines • 5.0 lux
- FOV: 92° • 3.6mm lens/F2.0
- Low power consumption
- Automatic exposure, gain and white balance

Part No.	Description	1	10
171011ED	Camera board	$73.95	$66.59

Black & White Camera

EIA Format
- 1/3" CCD image sensor
- 510(H) x 492(V) • S/N ratio: 46dB
- Horizontal resolution: >350 lines
- Scanning system: 2:1 interlace
- Sensitivity: 0.7 lux/F2.0 • FOV: 92°
- Video output: 1Vp-p, composite video 75Ω
- Pwr. supply: 12VDC (recommend P/N 162996ED, website) • Power consumption: 110mA
- Electronic shutter: 1/125,000 sec. (linear)

Part No.	Description	1	10
171029ED	Camera board	$47.95	$42.95

Color Interline Camera

- EIA format
- 1/3" CMOS image sensor
- EIA format: 512(H) x 492(V)
- 330 horizontal line resolution
- 2:1 scanning interlace system
- 5 lux sensitivity • FOV: 530
- Video output: 1V p-p; 75Ω
- 6mm lens/F2.0 • S/N ratio: 40dB
- Electronic shutter: 1/60 – 1/1,200 sec.
- Water resistant with adjustable mounting bracket
- Connectors: 1 standard RCA female jack for video, and in-line 2.1mm power-plug connector for power supply • Size: 2.6"L x 0.9"Dia.

Includes: Adjustable mounting bracket, instruction sheet and 9V @ 100mA power supply

Part No.	Description	1	10
185017ED	Color camera	$99.95	$89.95

Mini Enclosed Color NTSC Camera

- 1/4" CCD Sensor
- 350 horizontal TV lines
- 1 lux/F2.0
- Electronic shutter: up to 1/120,000 sec.
- NTSC system with 512(H) x 492(V)
- Scanning system: 2:1 interlace
- Signal to noise ratio: 48dB • Lens: 3.7mm/F2.0
- Video output: 1Vp-p, 75Ω • FOV: 92°
- Size: (enclosure) 1.3"L x 1.1"W x 0.9"D
- Weight: 0.3 lbs. • Two-year warranty

Requires: 9VDC – 12VDC @ 500mA power supply (recommend P/N 100853ED, pg 39)
Includes: BNC/Power cable and mounting hardware

Part No.	Description	1	10
215423ED	Mini enclosed camera	$129.95	$119.95

Color Camera

- 1/3" Panasonic CCD image sensor
- Image size: 4.82mm (H) x 3.64mm (V)
- More than 380TV lines horizontal resolution
- FOV: 42.6° • 1.0 lux / F1.4
- 15.734kHz synchronous frequency
- Scanning system: 2:1 interlace
- S/N ratio: more than 46dB
- BNC connector for video
- Video output: 1Vp-p; 75Ω
- 512(H) x 492(V) NTSC signal format
- Auto iris: DC driver / video driver switchable
- Size: 4.0"L x 2.2"W x 2.0"H • Weight: 0.9 lbs.

Requires: 12VDC @ 140mA power supply (recommend P/N 162996ED, see website)

Part No.	Description	1	10
171248ED	Color CCD camera	$224.95	$201.95

4-Channel 2.4GHz Wireless Audio/Video Transmitter System

CCIR, NTSC, PAL, EIA Format
- ISM band: 2.4–2.483GHz
- Four selectable channel transmitter and receiver
- Audio response: 20Hz–20kHz
- Antenna mode: dipole (omnidirectional)
- Video output: 1V p-p/75Ω composite video
- RCA jacks for audio/video connectors

Includes: Two 12VDC @ 500mA w/ 2.1mm x 5.5mm center positive plug, and patch cables
Transmitter: Size: 3.5"L x 2.5"W x 1.1"H
Receiver: Size: 5.1"L x 4.0"W x 1.0"H

Part No.	Description	1	10
169631ED	4-ch. wireless system	$149.95	$134.95

2.4GHz Wireless Antenna Booster

Extend Video Transmitting Distance
- Output power: 700mW (±10%)
- Input power: 10mW ~ 60mW
- Consumption 350mA
- Impedance output: 50Ω typical (to antenna)
- Frequency: 2400 – 2500
- Size: 2.2"L x 2.0"W x 0.8"H

215175ED

Includes: 9VDC @ 800mA power supply

179872ED

Part No.	Description	1	10
215175ED	Antenna booster	$199.95	$179.95
179872ED	Wireless extension cable	10.99	9.89

More @ www.Jameco.com

Video Text Display Module

NTSC composite (1Vp-p, 75Ω)
- Serial data input: 2400-19.2kbps • 30-pin SIMM form factor (socket supplied)
- Compatible w/ Parallax Basic Stamp®, see pg 66
- Auto-switching genlock overlay or internal video generation
- Power supply: +8-16VDC @ 65mA input, 5VDC aux. output (regulated)
- Displays up to 308 characters (11 lines of 28) • Asynchronous serial input only @ 9600bps

SALE

Part No.	Mfr. Cross Ref. No.	Character Pattern	Size	1	10	25
162051ED	BOBII	12 x 18 pixels	3.5"L x 1.1"H....................	$69.95	$62.95	$56.65

The Microcontroller Idea Book

The Idea Book introduces low end embedded microcontroller design. It provides practical designs for use with data loggers,controllers and small computer applications. (277 pages, 1997)

- Circuits, programs and applications featuring the 8052-BASIC single chip computer

Part No.	Description	1	10
126375ED	Micro. Idea Book	$31.95	$28.95

Practical Electronics Book for Inventors

McGraw-Hill Provides information needed for practical use in a format you can understand. With hand-drawn illustrations, this learn-as-you-go guide shows you what a particular device does, looks like and compares with other similar devices. Provides an easy-to-understand overview of basic components, resistors, diodes, capacitors, inductors, rectifiers, amplifiers, voltage regulators, discrete passive and active devices and so on.(604 pages, 2000)

Part No.	Description	1	10
174529ED	Practical Electronics	$39.95	$34.95

IC Projects for Hobbyist and Technicians

Prompt Publishing Written for hobbyists and technicians who are interested in projects for integrated circuits – projects that you will be able to breadboard quickly and test easily. (212 pages, 1997)

Part No.	Description	1	10
143271ED	IC Projects Book	$26.95	$24.25

Programming & Customizing PICmicro Microcontrollers

Second Edition
McGraw-Hill Details the features of the PICmicro® and how to use these embedded chips to access and control many different devices. Shows what happens within the PICmicro® when an instruction is executed and how it interfaces with external devices.(1190 pages, 2001)

Includes: CD-ROM and PIC PCB

Part No.	Description	1	10
183046ED	PICmicro Programming	$49.95	$44.95

The Microcontroller Application Cookbook - Volume 2

Woodglen Press - Building on the foundations laid on the first volume, this volume contains schematics with complete part numbers as well as sample "code snippets" that demonstrates how each circuit works. This book focuses on the actual circuits and components, leaving the theory process behind and providing you the practical creation of a working circuit. The author has acknowledged Jameco Electronics for providing the components necessary in creating the circuits. (248 pages, 2002)

Part No.	Description	1	10
212847ED	Microcontroller Cookbook Vol 2	$29.95	$27.95
181681ED	Microcontroller Cookbook Vol 1 ...	29.95	27.95

BASIC Stamp Data Book

Newnes Publishing Covers both the hardware and software of the Parallax BASIC stamp I and II microprocessor operation and design. The basic stamp is built on PC microcontroller hardware and uses PBASIC as its programming language which makes it simple to use and modify for beginners and professionals. (305 pages, 2000)

Part No.	Description	1	10
143651ED	Basic Stamp Data Book	$34.95	$31.49

PIC Microcontroller Project Book

Comprehensive Beginner's Guide

McGraw-Hill Provides you with hands-on directions for putting Microchip's RISC-based chips with up to 8k of memory to work. Starting with simple projects and experiments, this book leads you gradually into sophisticated programming techniques. Provides you guidance on getting the equipment you need and programming your chip. (203 pages, 2000)

Part No.	Description	1	10
174650ED	PIC Beginner's Guide	$29.95	$26.95

Electric Motors and Control Techniques

TAB Publishing
Explains how different types of motors operate, and how electronic control devices can be used to improve efficiency in a wide range of applications. (294 pages, 1994)

Part No.	Description	1	10
137162ED	Electric Motors & Control....	$19.99	$17.99

Robot Builder's Bonanza

TAB Publishing
This fascinating guide offers you a complete, unique collection of tested and proven project modules that you can mix and match to create an almost endless variety of highly intelligent and workable robot creatures. (753 pages, 2001)

Part No.	Description	1	10
137171ED	Robot Builder's Bonanza	$23.95	$21.45

Serial Port Complete

Lakeview Research
RS-232 and RS-485 are the most versatile, inexpensive interfaces for linking, but the hardware and programming are often misunderstood. This book provides you with everything you need to design, program, install and troubleshoot the links you set up. (306 pages, 1998)

Includes: 3.5" diskette

Part No.	Description	1	10
154771ED	Serial Port Complete	$39.95	$35.95

Everything You Need To Develop Custom USB Peripherals Book

Lakeview (2nd Edition)
This USB Complete book provides an easy-to-use interface for computer peripherals. The book covers topics such as what USB can do, transfer types, chip choices, what's inside a USB controller, writing firmware, how the host communicates and more. (523 pages, 1999)

Part No.	Description	1	10
171900ED	Complete USB Book	$49.95	$44.95

Programming and Customizing 8051 Microcontrollers

McGraw-Hill Provides you with a complete understanding of the 8051 chip compatibles along with all the information needed to design and debug applications and control many different devices. Includes over 30 experiments, 12 projects and CD-ROM featuring source code and PDF data sheets. (541 pages, 1999)

Part No.	Description	1	10
161402ED	Program/Customizing	$29.99	$26.99

Oscilloscope Guide Book

Prompt Publishing This book's full illustrations and diagrams bring oscilloscopes to life. Learn how to use them to conduct many tests and measurement techniques. This book answers questions about various types of oscilloscopes and how to obtain useful test results. (214 pages, 2001)

Part No.	Description	1	10
185404ED	Oscilloscope Guide Book	$29.95	$27.95

TTL Logic Data Book

Texas Instruments Contains specifications and technical information on a broad line of TTL integrated circuits including Schottky TTL circuits. (1240 pages, 1988)

Part No.	Description	1	10
88225ED	TTL Logic Data Book	$34.95	$31.49
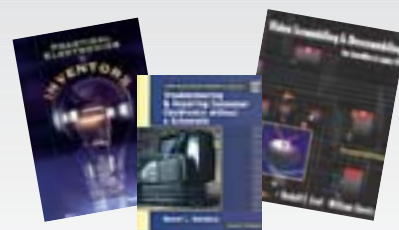
Long-Lasting NiMH Batteries and Chargers

185308ED   **185295ED**

Free Batteries Included!

Lasts 10-30 times longer than Rechargeable Alkaline!

Now you can reuse longer-lasting, money saving NiMH rechargeable batteries instead!
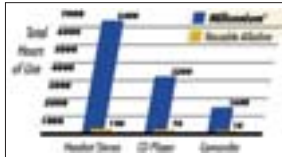
NiMH Batteries

Part No.	Description	1	10	25	100
185261ED	4x AA, 1600mAh	$13.95	$12.49	$11.25	$9.95
197000ED	2x C, 2300mAh	8.95	8.35	7.75	7.32
196998ED	2x D, 2300mAh	8.95	8.35	7.75	7.32
197018ED	1x 7.5V, 150mAh	9.95	8.95	8.15	7.29

NiMH Chargers

Part No.	Description	1	10	25	100
185308ED	AA charger (4 free)	$21.95	$19.95	$17.95	$15.95
185295ED	Universal charger	21.95	19.95	17.95	16.95

Replacement Battery

SALE

- Lithium half AA
- Amps: .85A-h
- Voltage: 3.6V (Tadiran)
- Diameter: .579"

Part No.	Description	1	10	25	100
126754ED	Lithium half AA ..	$6.95	$6.29	$5.65	$5.09

Lithium, Zinc Chloride and Alkaline Batteries

Applications: personal computers, workstations, test equipment, feature telephones, copiers, fax machines, video scramblers/descramblers and remotes.
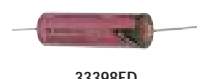
151095ED   **198791ED**   **33398ED**

Part Number	Mfr. Cross Ref. No.	Description (V/Amp-hours/Dia.)	Battery Type	Terminals/Connection	1	10	25	100
151095ED	GF6F22	9.0V/0.3A-h/1.0"L	Zinc chloride	Standard 9V	$1.25	$.99	$.79	$.65
198791ED	MN1604	9.0V/.5A-h	Alkaline	9V	2.85	2.55	2.29	2.05
126754ED	TL5101S	3.6V/.85A-h/.579"	Lithium	Half AA (Macintosh®)	6.95	6.29	5.65	5.09
33398ED	TL5104P	3.6V/1.9A-h/.579"	Lithium	Barrel w/ lead (clock/memory)	5.95	5.49	5.19	4.85
33427ED	TL5242W	3.6V/1.9A-h	Lithium	Battery pack w/ plug (PC)	9.95	8.99	7.65	5.99
14162ED	CR2032	3V/180mA-h/.787"	Lithium	Coin cell (clock/memory)	1.25	1.00	.75	.53

(Pricing columns: 1, 10, 25, 100)

SALE

TEMPEST Lead Acid Batteries

- .187" color-coded terminals (except P/N 159679ED – .470")
- Sealed
- UL approved
- Rechargeable
- Two-year warranty

Tempest is an ISO-9001 Certified Company

155328ED   **155336ED**   **159679ED**

Part Number	Product Number	Nom. Volt.	Amp-Hrs.	Charging Voltage Standby	Charging Voltage Cyclic	Cross Reference Panasonic	Cross Reference YUASA	Cross Reference Eagle Picher	Size L" x W" x H"	Wt. (lbs.)	Pricing 1	Pricing 10
155328ED	TR4-6	6	4A-h	6.75-6.9	7.2-7.5	LCR6VP	NP4-6	CF16V4	2.8 x 1.9 x 4.0	1.8	$10.49	$9.25
159661ED	TR2.3-12	12	2.3A-h	13.5-13.8	14.4-15	LCR12V2.2P	NP2.3-12	CF12V1.5	7.0 x 1.3 x 2.3	1.9	16.95	15.25
155336ED	TR4-12	12	4A-h	13.5-13.8	14.4-15	LCR12V4PF	NP412	CF12V4	3.6 x 2.8 x 4.0	3.4	17.95	16.19
155344ED	TR7-12	12	7A-h	13.5-13.8	14.4-15	LCR12V7.2BP	NP712	CFM12V65	6.0 x 2.6 x 4.0	5.9	18.95	17.15
168188ED	TR12-12	12	12A-h	13.5-13.8	14.4-15	PS12120	—	CFM12V12	5.9 x 3.8 x 3.8	9.0	30.95	26.95
159679ED*	TR18-12	12	18A-h	13.5-13.8	14.4-15	LCR12V17BP	NPG18-12	CF12V18	7.1 x 3.0 x 6.6	13.8	34.95	29.95

*159679ED: Bolt terminals w/ bolt & nut set

19 More @ www.Jameco.com

Jameco offers a large selection of Batteries. See our website for complete listings.

KIT ASSEMBLY EXPERIENCE LEVEL: 🟡 = Beginner 🟦 = Intermediate 🔺 = Expert

Kits and Lasers

1 Second to 3 Minute Timer Module

By operating a button, the relay will be activated for the selected time.

CEBEK

- Output contact rating: 5A @ 200VAC
- Size: 3.0"L x 1.7"W x 1.2"H

Requires: Power supply 12V @ 50mA (recommend P/N 100095ED, see website)

Part No.	Description	1	10	25
147871ED	I-1 timer	$19.95	$17.95	$15.95

Computer Control Interface Kit 🔺 301-piece kit

Connects to printer port without interruption of the printer. Works in control applications such as the infrared transit/receiver (P/Ns 120555ED and 120547ED, pg 69).

- 16 I/Os with opto coupler
- Analog outputs: eight 6-bit (64 steps), one 8-bit (256 steps)
- Analog inputs: four 8-bit (256 steps)
- Full opto-isolation with computer
- 3.5" driver disk w/ routines in C++, QBASIC, Turbo Pascal

Requires: DB25 cable (P/N 65787ED, pg 68)

velleman

Part No.	Product No.	Dimensions	Wt. (lbs.)	1	10
128928ED	K8000	9.3"L x 5.3"W	1.7	$139.95	$125.95

Universal Relay Card Kit 🔺 64-piece kit

velleman

An electronic controller that switches higher currents while providing insulation between the controller and the controlled devices.

128910ED

- Relay Output: Maximum 5A/220VAC
- Contact Voltage: 12VDC/250mA
- TTL or CMOS inputs

Requires: 220 or 125VAC power source

Part No.	Product No.	Dimensions	Wt. (lbs.)	1	10
128910ED	K6714	8.3"L x 5.9"W	1.8	$67.95	$61.95
144186ED	VR15M121C relay (JZC-22F)		0.028	3.79	3.39

Glass-Lens Red Laser Diode and Line Generator

133292ED: Laser Diode
- Operating voltage: 4.0–6.0VDC (recommend P/N 112070ED, see website)
- Beam size at 7m: oval – 5mm x 8mm
- Wavelength: 660nm
- Max. output: 4mW
- Beam divergence: 0.2mrad
- Green LED indicator

134148ED   **133292ED**

Class IIIa Laser Product

134148ED: 60° Line Generating Lens
- Adjustable focus range: 50 cm to ∞
- Lens construction: 3E.3G (glass)
- Back focal length: 1.5mm
- Focal length: 8.0mm
- Fan angle: 60°
- Beam divergence: 2.0mrad
- Length at 1 meter dist.: 1.70 m

Part No.	Description	1	10	25
133292ED	Glass laser diode	$44.95	$39.95	$35.95
134148ED	60° lens	12.95	11.49	9.95

Laser Diode Module

Class IIIa Laser Product

- Operates on 3VDC @ <5mW
- 670nm wavelength
- Beam diameter: 3.2mm
- Working distance: over 50 meters/yards (daylight), 200 meters/yards (dark)
- Size: 0.9"L x 0.3"Dia.

Part No.	Description	1	10	25
131203ED	Laser module, brass	$44.95	$40.49	$36.45

Laser Diode and Driver *SALE*

182932ED: Laser Diode   Class IIIa Laser Product
- Optical output power: ≤5mW maximum
- Operating current: 30mA
- 5.6mm pkg size
- Operating voltage: 2.6V maximum
- Lasting wavelength: 650nm typical
- Beam divergence of 11 degrees from center line maximum

182932ED   **161736ED**

161736ED: Laser driver w/ regulator • Input voltage: 2.6-6VDC • Input current: 40mA

Part No.	Description	1	10	25
182932ED	650nm laser diode	$11.95	$10.79	$9.69
161736ED	Laser driver	7.95	6.95	6.25

BASIC Stamps

127693ED   **130892ED**

BASIC Stamps are small computers using a variation of BASIC to control execution of many applications. The BS1-IC has 8 I/O lines, while the BS2-IC has 16 I/O lines which can be connected directly to buttons, LEDs, registers, and many other TTL level devices. Each allows you to store data in the EEPROM before downloading a BASIC program.

Specifications:	127693ED	130892ED
EEPROM	256 bytes	2048 bytes
RAM	16 bytes	32 bytes
Cur. Draw @ 5V	2mA run/20µA	8mA run/100µA
Microcontroller	PIC16C56	PIC16C57
Program speed	2000/sec.	4000/sec.
# of I/O Pins	8	16 + 2 serial
Package	14-pin SIP	24-pin DIP

140071ED: BASIC Stamp®2 Starter Kit w/ BS2-IC (27203ED) Includes the super carrier board, software, manual and programming cable. BASIC Stamp 2 can be connected directly to buttons, LEDs, registers and many other TTL devices.

140071ED

SALE

Part No.	Parallax No.	Wt. (lbs.)	1	10
127693ED	BS1-IC	0.01	$33.95	$32.29
130892ED	BS2-IC	0.01	45.95	41.95
140071ED	27203 Kit	1.9	139.95	132.95

50MHz BASIC Stamp 2SX Module

High-speed version of BS2-IC with additional RAM and EEPROM.

- Microcontroller: Ubicom SX28AC
- Program execution speed: 10,000 instructions/sec.   • Volts required: 5-12 VDC
- EEPROM program size: 8 x 2k bytes, 4,000 instructions   • Scratch pad RAM: 64 bytes
- Current draw @ 5V: 60mA run/200µA sleep
- Number of I/O pins: 16 + 2 serial
- RAM size: 32 bytes   • Size: 1.2"L x 0.6"W

Part No.	Parallax No.	1	10	50
159775ED	BS2SX-IC 24-pin ...	$58.95	$55.95	$53.19

BASIC Stamp 2P Modules

In addition to the BS2-SX (above) features, includes new commands for HD44780 compatible LCDs, Dallas Semiconductor 1-wire and Philips I2C parts.

184911ED

- Program execution speed: 12,000 instructions/sec.
- RAM size: 38 bytes
- Scratch pad RAM: 128 bytes
- Program size: 8 x 2k bytes, 4,000 instructions

184920ED

- Current draw @ 5V: 40mA run; 400µA sleep
184911ED: • Number of I/O pins: 16 + 2 serial
184920ED: • Number of I/O pins: 32 + 2 serial

Part No.	Parallax No.	1	10
184911ED	BS2P24-IC 24-pin	$78.95	$71.95
184920ED	BS2P40-IC 40-pin	98.95	89.95

Visit www.Jameco.com/Kits for our complete selection of kits.

Stamp Works Kit

This all-in-one kit takes you beyond theory, into a well-written collection of 32 experiments that will teach you first class BASIC Stamp programming. You'll learn to get the most out of the BASIC Stamp and to increase its versatility by connecting to popular active and passive components.

Part No.	Parallax No.	1	10
184946ED	27297	$348.95	$314.95

BASIC Stamp Prototyping Boards

Optional boards for BS1-IC, BS2-IC and BS2SX-IC Stamps.

- Easy use of Stamp with prototyping area, 9-volt battery clips, I/O header, reset button, and programming connector
130921ED: Use w/ P/N 130892ED, left
164726ED: Use w/ P/N 127693ED, 130892ED and P/N 159775ED, left

164726ED

Part No.	Parallax No.	1	10
130921ED	27120	$27.95	$24.95
164726ED	27130	48.95	46.55

In-System Programming Kit

This unique development tool programs Scenix SX chips in-system & performs in-circuit source-level debugging. Supports every Scenix Semiconductor chip that is commercially available.

See Page 23 for Microcontroller Chips

- Includes SX Key software, SX Tech Board, 2 SX 28AC/DP 50 MIPS chips, 1 Murata 50MHz resonator, printed manual, CD ROM, power supply and serial cable
- DB-9 serial connector connects to RS-232 port using serial cable
- 4-pin connector on other side of tool plugs into the SX's Vss, Vdd, OSC1 and OSC2 pins
- Windows® 95/98/NT compatible

Part No.	Parallax No.	1	10
176583ED	45180	$174.95	$154.95

50MIPS SX Microcontrollers

Part No.	Parallax No.	1	10
162931ED	SX28AC/DP (28-pin DIP pkg)	$5.49	$5.25

Parallax's "Stamps In Class" Series Kits
Enabling Students to "Micro-Control" the World

Learn BASIC Stamp programming essentials from the experts. Each kit combines an educational book with the components needed to cover robotics, process control and microcontroller interfacing. The program emphasizes creative PBASIC programming in the classroom. For use with the "Board of Education" below.

Robotics

Build a BOE-BOT by adding a chassis, servo motors, power supply, and proximity sensor to your Board of Education (right). Experiments cover basic programming and servo control, sensor interfacing using an infrared LED and receiver, light following, and communication between BOE-BOTs.

- Experience: moderate
- 84 piece kit with book

Requires: BS2 starter kit (P/N 140071ED, see website)

Part No.	Parallax No.	1	10
170131ED	28154	$134.95	$121.95

"Board of Education"

The BOE was designed in coordination with Parallax's educational customers to teach microcontroller programming and interfacing.

SALE

- Mechanically interlocked power supply to prevent dual connection of wall-pack and 9-volt battery
- DB9 connector for BS2-IC programming and serial communication during run-time
- P0 - P15 I/O pins, Vdd and Vss connections brought adjacent to 2" x 1-3/8" breadboard area
- Traces on top of the board show connections between BS2-IC and breadboard connections

Includes: Set of ten 10 color-coded 22 gauge wires

Part No.	Parallax No.	1	10
162536ED	28150	$54.95	$49.95
202331ED	BS2P40 adapter	24.49	21.95

BS2P Professional Starter Kit

Provides the engineer with all the parts required to get started with the BSP2 microcontroller. The kit includes a selection of components and ready-to-run source code that will help master some of the exciting new features of the BSP2.

Includes: Programming manual, BS2P demo board, BS2P-24 microcontroller, DB9 (serial) programming cable, PCF8583 chip, 32.678kHz crystal, 24LC32 serial EERPOM, DS1822 thermometer, (3) 4.7K resistor, jumper wires.

Part No.	Parallax No.	Description	1	10
202323ED	27235 kit	BS2P professional starter kit	$194.95	$174.95
202331ED	BS2P40	BS2P40 adapter	24.49	21.95

OWI® Robotic Arm Trainer Kit ▲ *109-piece kit*

Five Axis of Motion

Test your motor skills as you build and control the arm. This unit can be commanded or instructed through its five-switch wired controller with lights to grab, release, lift, lower, rotate wrist, and pivot sideways.

Arm

Controller 157366ED

- Max. length outwards: 14.2"
- Max. height upwards: 20.1"
- Max. lifting capacity: 4.6 oz.
- Elbow moving range @ 135˚
- Grip opens to 2" wide
- Shoulder movement @ 120˚
- Weight: 4.5 lbs.
- Wrist rotation clockwise or counter clockwise @ 340˚
- Rotates left to right at the base @ 350˚

Requires: 4 D batteries (not included)

Build It Yourself!

159345ED

Part No.	Description	1	10
157366ED	Robotic arm kit (unassembled)	$74.95	$67.49
159345ED	Robotic controller software (assembled)	84.95	76.49

Speech Recognition Kit ▲ *42-piece kit*

Easily program the words you want the circuit to recognize with this recognition kit. The heart of this speech recognition kit is the HM2007 IC, wherein you can program 40 words @ 0.96 second word length or 20 words @ 1.92 seconds word length. Several applications for this kit are: speech controlled appliances and toys, speech assisted computer games, telephone assistance systems, voice recognition security, & speech-to-speech translation.

- User programmable
- Non-volatile memory back-up
- Easily interfaced to control external circuits and appliances
- Multi-lingual

Part No.	Mfr. Cross Ref. No.	Description	Wt. (lbs.)	1	10
208611ED	HM2007U1	Speech kit	0.7	$119.95	$107.95

Robotic Arm PC Interface Kit ▲ *31-piece kit*

With a PC and the software provided, you can program this interface kit for the robotic arm to do a sequence of movements at precise steps or repeat the sequence.

Includes: DB25 male to female cable & software diskette

Part No.	Description	1	10
208637ED	PC Interface Kit	$69.95	$62.95

Flex Sensor

- Maximum resistance: 30kΩ to 40kΩ, proportional to the degree of flexing or bending
- Applications: virtual reality data gloves, robotic, bio-metric, physics and engineering

Part No.	Description	Nominal Resistance	1	10	100
150551ED	Flex sensor	10kΩ	$12.95	$11.65	$10.49

8-Pitch Gears and Gear Set

- Works with DC motors with 0.08" shaft diameter
- Heavy-duty plastic construction
- Pitch: 0.125"
- **162392ED:** 0.15" bore to 0.070" bore
- **131801ED:** 20-piece gear set includes 2 each of the following: T10, T20, T30, T40, T50 and 10 bushings

162093ED **162392ED** **131801ED**

SALE

✳ Prepackaged: order in increments of 10

Part No.	Mfr. Cross Ref. No.	Description	Shaft Bore	O.D.	Press Fit Shaft Dia.	Gear Dia.	1	10	100
162069ED	T10	10 teeth	0.151"	0.48"	0.156 (5/32)"	0.457"	$.69	$.62	$.59
162077ED	T20	20 teeth	0.151"	0.875"	0.156 (5/32)"	0.855"	.59	.50	.39
162085ED	T30	30 teeth	0.151"	1.27"	0.156 (5/32)"	1.239"	.69	.62	.56
162093ED	T40	40 teeth	0.151"	1.67"	0.156 (5/32)"	1.634"	.33	.30	.27
162106ED	T50	50 teeth	0.151"	2.07"	0.156 (5/32)"	2.016"	.35	.30	.25
162392ED	BUSH1	Bushing	0.075"	—	0.078 (5/64)"	0.160"	✳	.24	.22

Part No.	Mfr. Cross Ref. No.	Description	1	10	50
131801ED	GA1	Gear set – 20 piece (see description above)	$7.99	$7.29	$6.49

16-Pitch Sprocket Set and Chain

157075ED

- Operates in high humidity and corrosive environments
- Chain tension load: 2.0 lbs.
- **168276ED:** 14-piece sprocket set includes 1 each of the following: 8, 9, 10 teeth at ⅛" bore size; 12, 15, 16, 18, 20, 24, 30, 32, 36, 40 and 48 teeth at ¼" bore size

168276ED

Part No.	Mfr. Cross Ref. No.	Description	1	10	25
157075ED	C1227	Drive chain (12" long)	$9.95	$8.95	$7.95
168276ED	8890	Sprocket set - 14 pieces (see description above)	29.49	26.49	23.89

MONDO•TRONICS Flexinol Muscle Wires®

These unique nickel-titanium alloy Muscle Wires® actually shorten in length when electrically powered, and can lift thousands of times their own weight. • Length: 1 meter

How it works… Pressing the switch lets power flow from the batteries through the Muscle Wire®, heating it and causing it to contract and raise the lever and lift the weight. When power is removed, the Muscle Wire® cools and relaxes, and the weight helps it return to its starting position.

AA1
100 μm
10 cm

Batteries
(2 x AA)

J1

J2

141348ED: Muscle Wires® Book & Deluxe Kit
- Kit includes one each Flexinol 100, 150 and 250 Muscle Wires® (below) and Project Book
- 3 meters of wire

Includes: Crimps and instructions

Part No.	Desc.	Linear Wire Dia. (microns)	Typical Resistance (ohm/m)	Deform Current (mA)	Recovery Weight* (grams)	Weight* (grams)	Typical Rate**	Pricing 1	Pricing 10
141321ED	100LT	100	150	180	28	150	33	$15.95	$14.49
141874ED	150LT	150	50	400	62	330	20	16.95	15.29
160055ED	375LT	375	8	2750	393	2000	4	19.95	17.95

***** *Multiply by 0.0098 to get force in Newtons*   ****** *Cycles per minute, in still air, at 20˚ Centigrade*

Part No.	Description	1	10
141348ED	Muscle Wires® kit	$59.95	$53.95

Obstacle Avoidance Robot Kit ▲ *107-piece kit*

Six crank motion legged robot utilizes an infrared light sensing system to find obstacles and maneuvers itself aroundthem. This IR detection kit includes an infrared diode, photo diode, IC, 2 DC motors and all hardware.

Part No.	Description	Dimensions	Wt. (lbs.)	1	10
140821ED	Spider kit	12.0"L x 7.0"W x 3.5"H	1.2	$59.95	$53.95

MONDO•TRONICS Electric Pistons™

Deluxe 5 Pack

The Electric Piston is a shape memory alloy actuator that pulls with up to one pound of force and contracts by 20mm. Typical activation requires one volt at five amps for two seconds. Plus, mount several pistons in parallel for more strength, and in series for longer strokes.

- 1 volt @ 5 amps

Includes: Five pistons, battery, leads and plans for four complete projects

Part No.	Description	1	10
141903ED	Electric piston pack	$39.95	$34.95

High-Efficiency Robotic Servo

Excellent power-to-weight ratio for robotic projects.

- Supply voltage: 4.8-6 volts
- Torque: 49 oz.-in. @ 4.8V
- Speed: 16 seconds to 60˚
- Size: 0.8"W x 1.4"D x 1.6"H

Part No.	Mfr. Cross Ref.	1	10
157067ED	14500	$19.95	$17.95

Giant Robotic Ball-Bearing Servo

Extremely powerful! Perfect for large robotic projects where power is a must.

- Power supply voltage: 4.8-6 volts
- Torque: 161 oz.-in.
- Speed: 19 seconds to 60˚

Part No.	Description	1	10
166351ED	Giant robotic servo	$49.95	$44.95

Color Code Legend — SALE REFURBISHED CLOSEOUT

Dual Adjustable Regulated Power Supply Kit

■ *48-piece kit*

Build a dual adjustable power supply for your circuits. Outputs positive-negative voltages from ±5 to ±15VDC.

- Adjustable positive and negative supplies ±5 to ±15VDC, 175mA – 750mA per supply
- 120VAC input
- LED on indicator
- PC board construction

Includes: Components and hardware

Part No.	Mfr. Cross Ref. No.	Dimensions	Wt. (lbs.)	1	10	25
20626ED	JE215	5.1"L x 3.5"W x 2.0"H	2.1 ..	$22.95	$20.49	$18.49

DC Motor Speed Control Kit

■ *35-piece kit*

- This kit uses Pulse Width Modulation to vary the speed of a DC motor and maintain torque
- For motors up to 100VDC/5A max.

Requires: 5-16VDC supply (recommend P/N 114825ED, see website)

Part No.	Description	Dimensions	1	10
127829ED	Motor control kit	3.6"L x 2.3"W x 1.2"H	$19.95	$17.95
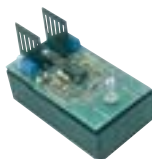
Distance and LED Kits

velleman Parking Radar Kit ■ *55-piece kit*

Parking in tight places can be difficult, but this unit can tell you when you have come within an adjustable preset distance of the object behind you.

- Detection range: 5cm – 1.5m; angle: 5˚
- Transmitter frequency: 40kHz
- PCB size: base (4.9"L x 1.9"W) sensor (3.8"L x 1.1"W)

Requires: 10-15VDC @ 16mA max (recommend P/N 100095ED, see website) or auto power plug (recommend P/N 115001ED, see website)

SALE

Part No.	Product No.	1	10	25
129120ED	K3502	$39.95	$35.99	$32.39

Ultrasonic Motion Detector Kit ■ *49-piece kit*

Detect Motion/movement from 13 to 23 ft. away and trigger an alarm with this kit.

- 2 boards: one with matched pair of ultrasonic transducers to detect motion from 13 to 23 ft. away; 2nd board contains crystal controlled oscillator and all circuits
- Switchable latch, red LED indicator
- Solder pad output to drive external relay or circuits
- Size: main board: 2.8"L x 2.0"W x 0.8"H; transducer board: 2.8"L x 0.6"W x 0.9"H

Requires: 9V battery (recommend P/N 151095ED, pg 77)

Part No.	Description	1	10
125090ED	Ultrasonic alarm kit	$29.95	$26.95

velleman Flashing LED Kit ■ *23-piece kit*

Activates 2 flashing LEDs for applications such as model constructions. Adjustable flashing speed by potentiometers.

- 5.5" wire w/ 9V battery connector
- Minimum consumption: 4mA

Requires: 9VDC battery (P/N 151095ED, pg 77)

Part No.	Product No.	Dimensions	Wt. (lbs.)	1	10	50
147580ED	MK102	1.3"L x 1.4"W x 0.6"H	0.1	$7.95	$7.19	$6.45
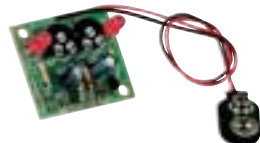
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LCD Development Kits
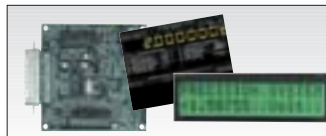
Unipolar Stepper Motor Driver Kit

■ *29-piece kit*

- Will drive unipolar stepper motors rated up to 6-30VDC @ 1.25A
- Onboard 5VDC regulator
- Drives 5, 6 or 8 lead unipolar stepper motors

Part No.	Description	Dimensions	1	10
139109ED	Stepper motor	2.6"L x 1.9"W x 1.0"H	$29.95	$26.95

velleman DC to Pulse Width Modulator Kit ▲ *40-piece kit*

The circuit converts a DC voltage into a series of pulses, such that the pulse duration is directly proportional to the value of the DC voltage.

- PWM range: 0 to 100%
- PWM frequency: 100Hz to 5kHz (adjustable)
- Operating voltage: 8 to 35VDC
- Min. consumption: 35mA
- Max. output current: 6.5A
- Efficiency: better than 90% at full load
- Adjustable sensitivity: 2.5 to 35VDC

Part No.	Product No.	Dimensions	Wt. (lbs.)	1	10	25
120539ED	K8004	3.3"L x 1.9"W x 1.8"H	0.5	$22.95	$20.49	$18.95

Test & Measurement Kits

Crossbow Accelerometers and Interface

141591ED 1-Axis and 141575 3-Axis Accelerometers
- Dynamic range and excellent frequency response
- Acceleration range: ±4g
- Shielded cable: 2'L pigtail

Requires: 5VDC power supply (recommend P/N 164101ED, pg 39)

141583ED: Digital Accelerometer Interface
- Measures acceleration, impact, tilt, vibration, etc.
- Simple digital interface for 1-axis and 3-axis
- Plugs into any RS-232 port @ 38.4k baud
- 200Hz max. sampling rate

Requires: DB9 male to female cable (recommend P/N 25700ED, pg 68)

Includes: User friendly graphical software and 9VDC @ 500mA power supply

SALE

141591ED

141583ED

Part No.	Description	Axis	Current	1	10
141591ED	CXL04M1	One	8mA	$114.95	$103.45
141575ED	CXL04M3	Three	24mA	319.95	299.95
141583ED	Digital interface card			312.95	299.95

Accelerometer Evaluation Boards

Dual Axis

Evaluation board for the ADXL202, dual axis, 2g accelerometer.

177308ED: features RS-232 interface to connect to PC serial ports. Also includes software to display real time acceleration data.

Crossbow

177308ED

Part No.	Product No.	Description	1	10
177287ED	ADXL202EB	Dual axis	$59.95	$53.95
177308ED	ADXL202EB-232	w/ RS-232	159.95	144.95

PRECISION NAVIGATION, INC. Vector 2X Compass Module

- 2˚ accuracy, 1˚ resolution
- 3-wire serial output format
- Hard iron calibration
- 5Hz sampling rate
- Pin selectable BCD or binary output format

Requires: Power supply 5V @ 10mA (recommend P/N 112070ED, see website)

Part No.	Description	1	10	25
126703ED	Vector 2X module	$49.95	$44.95	$39.95

Function Generator Kit ■ *21-piece kit*

Sine, Triangle and Square Wave

Great for prototyping electronic circuits. Produces waveforms at frequencies continuously variable from 1Hz to 100kHz.

Requires: 12VDC supply or ±6VDC split supply (recommend P/N 20626ED, top left)

Part No.	Mfr. Cross Ref. No.	Dimensions	1	10	25
20685ED	JE2206	4.1"L x 1.5"W	$24.95	$22.95	$19.95

Infrared and RF Code Lock Transmitters and Receivers ■ ▲

velleman

- Use for car alarms, garage doors, door locks, lighting control, etc. • Over 8000 selectable codes
- Use several transmitters with one receiver
- Receivers feature relay output (10A change-over or pulse contact)

Requires: Transmitter:12V battery type V23G; receivers: 12-16VDC @ 100mA (recommend P/N 100095ED, see website)

Specifications:

117655ED

134543ED

Transmitter	117647ED	117647ED	134543ED
Transmission	RF	RF	IR
Channels	2-ch	1-ch	1-ch
Range	100'	100'	23'
Experience	expert	expert	novice
Use w/ receiver	173235ED	117655ED	134551ED

Part No.	Description	Kit Pieces	Wt. (lbs.)	1	10
117647ED	K6706 2-ch transmitter (RF)	29	0.3	$16.95	$14.95
173235ED	K6727 2-ch receiver (RF)	75	0.5	39.95	35.95
117655ED	K6707A 1-ch receiver (RF)	75	0.5	29.95	26.99
134543ED	K6708 1-ch transmitter (IR)	16	0.3	13.95	12.49

Infrared Remote-Control Receiver Modules

- Commonly used in TVs, VCRs, audio equipment, car stereos and home computers that receive signals or data via infrared
- Single unit module which incorporates a PIN diode & a receiving preamplifier IC
- Excellent mechanical strength and electrical stability
- 940nm wavelength • Size: 0.6"L x 0.6"W x 0.5"H

165008ED

176541ED

SALE

Part No.	Description	Voltage Input	1	10	100	1000
165008ED	40.0kHz, top view	5VDC @ 5mA	$2.99	$2.69	$2.39	$1.99
176541ED	56.8kHz, side view	5VDC @ 2mA	1.95	1.79	1.45	1.05

IR LED Illuminator Kit ● 41-piece kit

- Improve low-light camcorder and CCD camera images without visible light
- 36 high powered infrared LEDs
- At 24' the beam is approximately 3.5' across

Requires: 12-15VDC power supply (recommend P/N 114825ED, see website)

Ideal for CCD Cameras

Part No.	Description	Dimensions	1	10	25
157964ED	IR illuminator kit	2" Dia.	$16.95	$15.29	$13.75

15-Channel Infrared Transmitter & Receiver ■

- Applications: remote on-off switch, alarms, garage door opener, etc.
- 15 independent channels • Transmitter/receiver range: ±30 meters

120555ED Transmitter: Requires: 9VDC battery. (recommend P/N 151095ED, pg 77)

120547ED Receiver: • Each output can be a change-over or pulse contact switch
- Output: 50VAC @ 500mA max. • PCB dimensions: 2.8"L x 5.7"W

Requires: 8-14VDC (recommend P/N 100095ED or 129314ED, see website)

velleman

120555ED

120547ED

Part No.	Description	Kit Pieces	Weight (lbs.)	1	10
120555ED	K6710 15-channel transmitter	37	0.8	$64.95	$58.39
120547ED	K6711 15-channel receiver	76	0.5	44.95	39.95

Audio Transmitters, Amplifier and Speech Recognition Kits

FM Stereo Transmitter Mini Kit ■ 37-piece kit

Run your own FM radio station! Plug any stereo signal into this unit and it will be transmitted to any FM radio. Tuneable from 76–108MHz. Plug in a CD player or tape deck and you have a wireless link to an FM radio within 200 feet. Clarity is approximately 40dB stereo separation.

Requires: 9VDC power supply (recommend P/N 151095ED, pg 77)

Part No.	Description	Dimensions	1	10
151239ED	FMST-100 stereo kit	2.7"L x 2.0"W	$29.95	$26.95

velleman Universal Mono Pre-Amplifier ■ 17-piece kit

For audio applications with insufficient input signal.

- Output impedance: 1kΩ • Max. input signal: 40mV
- Frequency range: 20Hz - 20kHz +/-3dB
- Adjustable output level: 40dB max.

Requires: 10/30VDC @ 10mA power supply (recommend P/N 20626ED, pg 80)

Part No.	Product No.	Dimensions	1	10	25
117612ED	K1803	1.2"L x 1.8"W	$8.95	$7.95	$7.25

velleman 30-Watt Stereo Power Amplifier ■ 38-piece kit

General purpose stereo amp for audio applications.

- RMS output: dual 15W @ 4Ω or dual 10W @ 8Ω
- Frequency bandwidth: 7Hz to 60kHz (-3dB)
- Separation: 70dB
- Supply voltage: 24VCT @ 2A (recommend P/N 101864ED, pg 36)

Part No.	Product No.	Dimensions	1	10	25
129138ED	K4003	2.8"L x 2.0"W	$29.95	$26.95	$24.49

Super Mini 2.5W Audio Power Amplifier ■ 27-piece kit

This circuit has incredibly tiny dimensions. The IC has a pre-amplifier and power amplifier, which can be used separately by cutting a jumper.

- Operating frequency: 60Hz to 15kHz
- Max. output power: 2.5W (4Ω, 12V)
- Short circuit/thermal overload protection

velleman

Requires: 4.5-15VDC @ 400mA pwr. supply (recommend P/N 114825ED, see website)

Part No.	Product No.	Dimensions	1	10	25
127175ED	K2637	1.7"L x 1.3"W x 1.1"H	$11.95	$10.69	$9.65

velleman 7-Watt Amplifier Kit ■ 22-piece kit

- Music output power: 7W/4Ω
- RMS output: 3.5W/4Ω & 2W/8Ω
- Harmonic distortion: 0.05% (1W/1kHz)
- Frequency response: 20 to 20kHz (-3dB)
- Short circuit/overload protection

Requires: 15VDC (8-18VDC) @ 500mA power supply (recommend P/N 155803ED, pg 39); speakers

Part No.	Product No.	Dimensions	1	10	25
127255ED	K4001	2.2"L x 1.4"W	$13.95	$12.49	$10.95

velleman Voice Activated LEDs Kit ■ 33-piece kit

Uses sound to activate the flashing of 4 bright red LEDs.

- Power consumption: 0.5mA min./12mA max.
- Adjustable sensitivity

Requires: 8-15VDC power supply (P/N 100095ED, see website) or 9VDC battery (P/N 151095ED, pg 77)

Part No.	Product No.	Dimensions	Wt. (lbs.)	1	10	25
147571ED	MK103	2.5"L x 1.6"W x 1.4"H	0.1	$9.95	$8.95	$7.49

PAYMENT OPTIONS

Credit Card/Check Cards
We accept VISA, MasterCard, American Express and Discover. No surcharge. Your account will not be charged until your order is shipped. When ordering, please advise name on card and credit card billing address.

Check or Money Order
You may pay by check or money order in U.S. funds, drawn on a U.S. bank.

Open Account
It is easy to open an account with Jameco. Contact us for obtaining open account status.

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Personal checks are accepted. Please add $7.00 per C.O.D. order. Include the name and address of your bank and your account number.

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Jameco Warranty
Jameco warrants all merchandise against defects in material or workmanship for a period of 90 days from the original purchase date unless otherwise stated in writing by Jameco. If Jameco receives the product considered to be defective within this warranty period and the product is determined to be defective, Jameco will, at its sole option and discretion, either repair or replace the product. The foregoing is your sole and exclusive remedy and states Jameco's entire liability arising out of this warranty. [However, Jameco will transfer to customer whatever transferable warranties and indemnities Jameco receives from the manufacturer of the products. Any claims arising from such manufacturer's warranties shall be the sole responsibility of the manufacturer and not of Jameco.] Moreover, Jameco's limited warranty is void if the damage or defect has resulted from improper customer assembly, failure by customer to follow instruction, product modification, negligent or improper operation, accident, abuse or misapplication. Products returned to Jameco pursuant to this warranty must be returned to Jameco prepaid.

No Other Warranties
The limited warranty above is exclusive and in lieu of all other conditions and warranties for the products and documentation. Jameco makes no other conditions or warranties, express, implied, statutory or otherwise, and expressly disclaims all other conditions and warranties, including but not limited to, implied conditions or warranties of merchantability, fitness for a particular purpose, and non-infringement of the products.

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Online: http://www.Jameco.com
On-line catalog! Our complete offering of over 6,000 products searchable on the Jameco website!

Mail: E-mail your order to: sales@Jameco.com or fill out the order form (page 83) and mail it to us.

In-Person: Visit Jameco at 1355 Shoreway Rd., Belmont, CA. Will-call office hours are 8:00 a.m. - 5:00 p.m. Monday - Friday

CONTACT INFORMATION

The following services are available at 1·650·592·8097 Monday - Friday from 6:30 a.m. - 5.00 p.m. PST or via e-mail:
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• Customer Service (custservice@Jameco.com)
• Credit Department (credit@Jameco.com)
• Technical Support (tech@Jameco.com)

Toll-Free Hotline!
Please call us at 1-800-455-6119.

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Prices are effective 07-14-03. Prices and discounts are subject to change without notice. We are not responsible for any typographical errors in this catalog. Photos are representative; product appearance may vary.

ONLINE INFORMATION
Get answers to frequently asked questions on the Jameco website at:
http://www.Jameco.com

SHIPPING INFORMATION

Guaranteed Delivery Time for UPS Ground (Business Days)

① day	② days	③ days
④ days	⑤ days	⑥ days

Orders received Mon.-Fri. by 6:00 p.m. Eastern Standard Time will be shipped the same day. Orders received Saturday and Sunday will ship the following Monday (except on holidays). If we are unable to fill your order on the day received, we will send you a gift certificate worth $5.00 towards your next Jameco purchase. This offer does not apply to orders waiting for credit approval or backordered items.

Options and Rates*

Shipping delivery times are based on working days.

Ground Service
Up to 6 working days for commercial address (up to 9 working days for residential). Guaranteed delivery times may vary depending on zip code. $6.50 for 1st 2 lbs.; $0.74 for each additional lb.

2-Day Air Service
$12.00 for 1st 2 lbs.; $1.50 for each additional lb.

Next Day Air Service
• $21.50 for AM delivery for 1st 2 lbs.; $1.95 for each additional lb.
• $16.00 for afternoon delivery for 1st 2 lbs.; $1.95 for each additional lb.

Priority Mail (USPS)
$4.75 for 1st lb.; $1.90 for each additional lb. Order must be placed before 5:00 p.m. Eastern Standard Time to ship same day.
Jameco reserves the right to rebill shipping surcharges for customer misaddressed packages

*   The above rates apply to single box shipments that are less than 50 lbs. Please call for shipping quote on packages greater than 50 lbs.

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Shipping is via courier or postal service, depending on your preference, insurance availability, and the size and weight of your package. Jameco will apply actual shipping charges with a nominal handling charge on all foreign orders. For mail-in customers, please include 25% for shipping charges or call for a shipping quotation. All returns that meet postal requirements must be sent prepaid via air parcel post. All courier shipments to Canada and Mexico require a certificate of origin. Jameco will provide a certificate of origin for a $25 processing fee.

POLICIES

Confirming Orders
Please do not send confirming orders. If company policy necessitates a confirming order, please mark "CONFIRMING" boldly on the first page of the order.

No Minimum Order
A $5.00 processing fee will be added to orders under $20.00.

See page 82 for Ordering Information

Fax 1•800•237•6948   Order 24 hours/7 days a week!

Jameco, 1355 Shoreway Road, Belmont, CA 94002   Call: 1•800•455•6119   International TEL: 1•650•592•8097   FAX: 1•650•592•2503

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We will ship to this address unless you enter a different ship to address.

Customer No. _____   VIP No. (see back cover) _____

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Name of Purchasing Agent _____   Title _____

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City _____   State _____   Zip Code _____

Contact information (please provide all information and check method preferred)

( ) _____
☐ Daytime phone number - Required for Credit Card Orders

( ) _____
☐ Fax Number

☐ E-mail Address _____

☐ Please check this box if you would not like to receive special offers via e-mail from Jameco.

2 Ship To: (Only required if different)

Company _____

Name _____   Title _____

Street Address/PO Box Number _____

City _____   State _____   Zip Code _____

3 Method of Payment:

☐ Prepaid (check enclosed)   ☐ C.O.D. ($7.00 service charge)

☐ Net 30 Days (Account must be previously established. Authorized P.O. # required.)

PURCHASE ORDER NO.: _____

☐ Credit Card

Credit Card users only:

VISA   MC   AMEX   DISCOVER

Credit Card Number ☐☐☐☐ ☐☐☐☐ ☐☐☐☐ ☐☐☐☐

Exp. Date: Month ☐☐ Year ☐☐☐ Name on card _____

Billing Address Street/PO Box _____   City/State/Zip _____

4

ITEM NO.	QTY.	PART NUMBER	DATA SHEETS	DESCRIPTION	PAGE NO.	WEIGHT (LBS.)	UNIT PRICE	TOTAL
1								
2								
3								
4								
5								
6								
7								
8								
9								
10								
11								

	TOTAL WEIGHT		SUB-TOTAL	

5 Please Check Shipping Method Below:

AIRBORNE EXPRESS   UPS   FedEx Federal Express   (USPS)

☐ **Priority Mail (USPS)** ....$4.75 for 1st lb., $1.90 for each additional lb.
☐ **Ground** ....$6.50 for 1st 2 lbs., $0.74 for each additional lb.
☐ **2 Day Air Service** ....$12.00 for 1st 2 lbs., $1.50 for each additional lb.
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☐ **Foreign Shipment** via Air Parcel Post ....Shipping approximately 25% of order total. Excess fees will be refunded. Additional shipping methods available

Some restrictions may apply. See order information on page 82 for other shipping methods and conditions of sale.
Shipping rate is based on a single package shipment.

Add $5.00 processing fee on orders under $20	
Please Add Applicable Sales Tax (California Only)	
Shipping (See Item 5)	
C.O.D. (add $7.00)	
Canada and Mexico Certificate of Origin ($25)	
Credit Memo (please attach)	–
TOTAL	

6 **JAMECO** *thanks you for Your Order!*

FOR OFFICE USE ONLY
_____ / _____

Color Code Legend
SALE REFURBISHED CLOSEOUT

JAMECO®

Low-cost, high speed, universal EPROM FLASH programmer.

- USB interface to link with PC or Laptop
- Supports low voltage components up to 2.5V; user selectable verify Vcc with one or two-pass verify voltage
- High speed: 30 seconds to process 16Mbits flash memory
- Simple operating software: the programming procedure has only a few automatic process functions (PROJECT, CREATE, COPY, UTILITY)
- Auto detect device pin insertion and contact check
- Select device brand and number by prompt and convenient cross search; FLASH memory auto detection
- Supports EPROM, EEPROM, FLASH EPROM, Serial E/EPROM, NV Rams, Microcontrollers, DSP, PLD and more
- Supports file formats JEDEC, binary, INTEL 80/86 HEX, Motorola HEX, Tektronic HEX (automatic file format detection and connection)
- Size: 6.3"H x 4.3"W x 1.8"D   • Weight: 1.1 lbs.

Includes: USB cable, 12V @ 1.5A power adapter, CD-ROM software

System requirements: Pentium II or higher compatible, 32MB RAM minimum, 30MB hard disk space, Windows® 98/ME/2000 operating system

225939ED   Universal EPROM/Flash Programmer **...................** $599.95

Dedicated FLASH programmer with easy graphic PC interface.

A light, compact portable unit that interfaces with your PC or Laptop through the USB port.

- Programs 8-bit FLASH serial IC's via USB cable on Windows 9x,/2000/XP
- Friendly, easy-to-use graphic operation interface
- High speed: MXIC MX29F040 takes 22 seconds to blank check, program, and verify
- File formats supported: binary and machine code, Intel HEX, Motorola HEX, Tektronix
- Type, read, load, edit, checksum, erase, blank check, program, verify, protect functions
- Supports FLASH EPROM (29C/LC256 to 29C/LC040, 29EE/LE/VE512 to 29EE/LE/VE020, 28F/LF/VF256 to 28F/LF/VF040, 29F010 to 29F040, 29F001 to 29F002, 39SF/VF512 to 39SF/VF040, 49BV/F512 to 49BV/F040, 49BV/F/LV001 to 49BV/F/LV002) EPROM (27C/LV64 to 27C/LV080), EEPROM (28C64 to 28C040)
- Size: 6.2"L x 4.3"W x 1.8"H   • Weight: 1.4 lbs.

Includes: USB cable, 12V @ 500mA adapter, CD-ROM software and manual

225947ED   USB Interface Flash Write/Programmer **...............** $219.95

MCS-51 programmer with graphical interface for tight budgets.

- Programs 8-bit MCS-51 serial IC's via USB cable on Windows 9x/2000/XP
- Friendly, easy-to-use graphic interface
- High-speed, high performance programming: ATMEL AT89S52 takes 4 seconds to erase, blank check, program, and verify
- Type, read, load, edit, checksum, erase, blank check, program, verify, protect functions
- Supports file formats binary and machine code, Intel HEX, Motorola HEX, Tektronix
- Supports ATMEL; Hyundai; Intel 87C; ISSI, Philips, SST, TEMIC, and Winbond IC's
- Size: 6.2"H x 4.3"W x 1.8"D   • Weight: 1.1 lbs.

Includes: USB cable, 12V @ 500mA power adapter, CD-ROM software and manual

System requirements: Pentium® III 500 or higher, Windows® 98/2000/XP, 20MB hard disk space, and USB port

225921ED   MCS-51 Programmer with USB Interface **...............** $249.95

Analog display soldering station.

Maintains a steady temperature using a cartridge heating element, providing a longer life for the solid soldering tip.

- Electronic temperature control: 300°- 850°F
- Isolated power supply: powered by a high quality 24VAC transformer
- Lockout and calibration ports: set and lock the station at a specific temperature as well as an easy access point to calibrate temperatures
- Power: 60 watts
- CMOS devices protected against voltage spikes
- Size: Base unit is 5.2"W X 8.0"D X 3.6"H
- Weight: 5.3 lbs.

Includes: XY404 soldering tip

219627ED   60-Watt Analog Soldering Station **...........................** $99.95

New heavy duty thermometer & pH meter.

This is an ideal portable meter for measurement of pH, millivolts and temperature with laboratory-quality accuracy at a very attractive price.

- Dual display for pH or mV and temperature
- Degrees C°/F° switchable
- Easy 2-point slope and cal adjustments at pH4 and pH7
- Min./max., and average recall
- Super-large LCD with contrast adjust
- Manual and auto temperature compensation using temp. probe
- Auto shutoff and data hold
- Low battery indicator
- Size: 7.0"L x 2.9"W x 1.3"T
- Weight: 0.8 lbs.

EXTECH INSTRUMENTS

Includes: Temperature probe, pH probe and carrying case.

# **223861ED**	pH Waterproof Meter	**$268.95**
# **218131ED**	Tripak Buffers for Calibration	**$24.95**
# **218149ED**	Vinyl Carrying Case	**$9.95**

We dare you to find a less expensive full-function pocket DMM!

The unique design of this full-function pocket DMM allows you to change the function with your thumb while holding it in one hand. Built-in leads. 500V overload protection.
- $3^1/_2$-digit LCD display (0.43" digit height)
- **Resolution:** 1mV maximum
- **DC voltage ranges:** 2V – 500V
- **AC voltage ranges:** 200V – 500V
- **DC current range:** 200mA
- **Resistance ranges:** 2kΩ – 2000kΩ
- Diode and continuity test
- Size: 4.7"H x 2.7"W x 0.8"D

Includes: carrying case.

220812ED 2000-Count Pocket Multimeter **$12.95**

Spring-hook set makes the job faster & easier.

Each end has a unique point to fit the right situation and position.

Grab or place in position springs and wires in those hard-to-reach areas with these 8" long spring-hook tools.

226042ED Spring-Hook Set **$5.95**

Find out what's bugging you.

Electromagnetic radiation is all around us, some of it not so friendly; but until now there's never been an easier, more portable device to detect and measure it. Whether you're concerned about your kid's playground near the power station, the laboratory, microwave oven emissions, or searching for clandestine surveillance devices; the ZAP Checker can give you a new measure of peace of mind. Its portability and multiple settings allow you to search out EMR whenever and wherever you want, from your home or office environments to hotel suites and conference rooms. Find out once and for all with the ZAP Checker.

217808ED Zap Checker Radiation Monitor **$129.95**

A great bargain 2000-count multimeter for just $15.95.

A full-featured multimeter with the basic functions needed for testing electronic equipment. Large 0.6" 2000-count LCD backlit display and single rotary action switch for selection function and range.

Compared to simpler models this DMM features:
- *Greater resolution: 100uV maximum*
- *7 function / 17 ranges*
- *Data hold switch, backlight button*
- *Transistor hFE test*

- **DC voltage ranges**: 200mV – 600V
- **AC voltage ranges**: 200V – 600V
- **DC current ranges**: 200uA – 10A
- **Resistance ranges**: 200Ω– 2MΩ
- Size: 5.4"H x 2.7"W x 1.2"D

220759ED 2000-Count Multimeter with Diode & hFE Test **$15.95**

Mini thermo-anemometer.

Measure air velocity, temperature and windchill; all in one compact and waterproof package. Ideal for checking blowers, fans, exhaust hoods and balancing AC/HT ducts. Measures temperature and windchill from 0°F-122°F (18°C-50°C) and wind speed in ft/min., MPH, m/s, km/h, knots and Beaufort force. Large dual display for air velocity and temperature. Auto shut-off 20 minutes after last key is pressed.Water resistant housing floats and drop tested to 6'.

Foldable housing extends 9" for better reach

Includes: CR2032 lithium battery and lanyard.

218085ED Mini-Thermo Anemometer **$88.95**